
2014

USDA Enterprise Roadmap

Office of the Chief Information Officer



Table of Contents

1.0	Introduction.....	1
	Purpose.....	3
	Integrated IT Governance Lifecycle Management	4
	Architectural Leadership and Focus.....	5
2.0	Enterprise Architecture Overview	6
3.0	Current USDA EA Program	6
	Open Data Strategy	8
	Digital Strategy.....	10
	Mobile Strategy	10
	EA Value Measurement	10
	Outcomes and Measurements	11
	Enterprise Architecture Maturity Model Framework	11
	Investments by USDA Mission Areas	12
	Organizational View	13
	USDA’s Major Investment Portfolio by Agency and Staff Office.....	15
	Office of the Chief Financial Officer (OCFO)	15
	Departmental Management	19
	Farm and Foreign Agricultural Services.....	30
	Food, Nutrition and Consumer Services	36
	Food Safety	38
	Marketing and Regulatory Programs	43
	Natural Resources and Environment.....	48
	Research, Education and Economics	53
	Rural Development.....	55
	Future Architecture	58
	Office of the Chief Financial Officer (OCFO)	59
	Departmental Management	61
	Farm and Foreign Agriculture Service	74
	Food, Nutrition, and Consumer Services	77
	Food Safety	79

Marketing and Regulatory Programs	80
Natural Resources and Environment	82
Research, Education, and Economics	86
Rural Development	87
Transition Plan	88
High Priority Modernization Plans.....	90
4.0 IT Asset Inventory	109
5.0 Conclusion.....	110
Appendix A: EAMMF Self-Assessment	A-1
Appendix B: EA Outcomes and Measurements	B-1
Appendix C: FY14 USDA Major Information Technology Investments Risks	C-1
Departmental Management Major IT Investment Risks	C-1
Office of the Chief Financial Officer Major IT Investment Risks	C-18
Farm Service Agency (FSA) Major Investment Risks	C-34
Risk Management Agency Major Investment Risks.....	C-38
Food, Nutrition, and Consumer Services Mission Area Major IT Investment Risks	C-45
Food and Nutrition Service (FNS) Major Investment Risks.....	C-45
Food Safety Mission Area Major IT Investment Risks.....	C-46
Food Safety Inspection Service (FSIS) Major Investment Risks.....	C-46
Marketing and Regulatory Programs Mission Area Major IT Investment Risks.....	C-55
Agricultural Marketing Service (AMS) Major Investment Risks	C-55
Animal and Plant Health Inspection Service (APHIS) Major Investment Risks ...	C-56
Natural Resources and Environment Mission Area Major Investment Risks	C-70
Forest Service (FS) Major Investment Risks	C-70
Natural Resources Conservation Service (NRCS) Major Investment Risks	C-84
Rural Development Mission Area Major Investment Risks.....	C-95
Rural Development (RD) Major Investment Risks	C-95
Appendix D: IRM/ER Traceability Matrix	D-1
Appendix E: Acronyms and Abbreviations	E-1

Table of Figures

Figure 1: Enterprise IT Governance Management Structure.....	5
Figure 2 Mission View	12
Figure 3 Organizational View	14
Figure 4: Major IT Investment Budgets by Mission Area	15
Figure 5: Departmental Management and OCFO Major IT Spending by Organization ..	20
Figure 6: Farm and Foreign Agricultural Services FY14 Major IT Investment Spending	32
Figure 7: FNCS FY14 Major IT Investment Summary	37
Figure 8: FSIS FY14 Major IT Investment Summary.....	39
Figure 9: Marketing and Regulatory Programs Major IT Investment Spending	45
Figure 10: NRCS Major IT Investment Spending	50
Figure 11: Summary of Rural Development Major IT Investment Spending.....	56
Figure 12: Conservation Delivery Streamlining Initiative Timeline.....	93
Figure 13: Comprehensive Loan Program Timeline	94
Figure 14: Emerging Information Technology Architecture Timeline	97
Figure 15: Web Based Supply Chain Management (WBSCM) Timeline	101
Figure 16: Homeland Security Presidential Directive-12 (HSPD-12) Timeline	105
Figure 17: Internet Protocol version 6 (IPv6) Timeline	108

1.0 Introduction

The United States Department of Agriculture's (USDA) mission is to provide leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on sound public policy, the best available science, and efficient management.

USDA's mission is incredibly diverse and reaches far beyond what one might typically think of as "agriculture." As the following points illustrate, it is no exaggeration to say that USDA's work touches every American citizen, across every state, throughout every day:

- The Food and Nutrition Service is our Nation's first line of defense against hunger, especially for children and low-income citizens;
- The Food Safety and Inspection Service protects the nation against food-borne illness;
- The Forest Service leads all efforts to prevent and manage wildland fires;
- USDA is the tenth largest lender in the United States and through Rural Development has over 1 million loans in rural America; and
- USDA finances both housing and essential community facilities such as schools, hospitals, water supplies, electricity, and broadband access.

USDA Mission

We provide leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on sound public policy, the best available science, and efficient management.

USDA Services to the American citizen and Industries include;

- Assisting Rural Communities
 - Broadband
 - Disaster Assistance
 - Grants and Loans
 - Insurance Programs
- Conservation
 - Environmental Markets
 - Conservation

-
- Wildfire Prevention
 - Education and Research
 - Agricultural Research
 - Agricultural Statistics
 - Economic Research
 - Food and Nutrition
 - Child Nutrition Programs
 - Expanded Food and Nutrition Education Program (EFNEP)
 - Organic Program
 - Supplemental Nutrition Assistance Program (SNAP)
 - Women Infant and Children (WIC) Program
 - Marketing and Trade
 - Exporting Goods
 - Food Security
 - Importing Goods

USDA's FY 2014 and FY 2015 strategic plan outlines five strategic goals that are essential to executing the Department's mission.

- **Strategic Goal 1:** Assist rural communities to create prosperity so they are self-sustaining, repopulating, and economically thriving.
- **Strategic Goal 2:** Ensure our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing our water resources.
- **Strategic Goal 3:** Help America promote agricultural production and biotechnology exports as America works to increase food security.
- **Strategic Goal 4:** Ensure that all of America's children have access to safe, nutritious, and balanced meals.
- **Strategic Goal 5:** Create a USDA for the 21st Century that is high-performing, efficient, and adaptable.

This Enterprise Roadmap (ER) outlines the necessary technologies, capabilities, and operations necessary to execute the Department's mission and strategic goals. The roadmap supports the IT Strategic Goals identified in USDA's IRM Strategic Plan by presenting a high-level, integrated description of the Department's business objectives, enabling IT capabilities, and target outcomes across its Agencies and Mission Areas. It was developed using Enterprise Architecture (EA) concepts and methods to describe the Department's current architecture, future architecture, and transition plan. The ER is focuses on Department-wide initiatives and on the Department's major IT investment portfolio, as well as, the portfolio's effect on achieving USDA's strategic goals and objectives in support of USDA's seven (7) mission areas.

USDA's ER reflects the Department's dynamic environment and the continuously changing USDA IT environment, and greatly expands on the FY 2013 ER submission. The FY 2014 Roadmap:

- Addresses the major investments in the Department's recently re-aligned IT portfolio. USDA reduced the number of major IT investments in its portfolio from 38 to 24 for FY 2014.
- Provides a holistic overview of major investments within the Department's Mission Areas and component Agencies, and addresses the questions, suggestions, and gaps identified by OMB in its review of the FY 2013 Roadmap.
- Demonstrates how USDA has prioritized and planned its transition strategy through a deliberate discussion of its high-priority modernization initiatives and its administrative initiatives.
- Explains the IT investment risks (see Appendix C). The addition of a risk section explains the uncertainties and challenges faced by the Department and its Agencies in executing its missions.

USDA's ER reflects the changing program and business context of a continuously evolving Department. USDA will continue to update the Department's Roadmap to provide the information necessary to assess USDA's current and future architectures and the transition plan.

Purpose

The purpose of the USDA ER is to define and sequence the activities needed to yield the desired future state, according to USDA priorities, dependencies, and constraints. It

is the basis for IT modernization, driving both investment and implementation of systems and technologies that will transform USDA's business.

The USDA ER is focused on Department-wide initiatives and the Department's major IT investment portfolio and its effect on achieving USDA's strategic goals and objectives in support of its seven (7) mission areas.

The USDA Roadmap documents USDA's Business and Technology Architecture, which includes the following activities and measurements:

- Enterprise Architecture (EA) Maturity Measurement: A self-evaluation of the maturity of the Agency's EA Program.
- EA Outcomes and Measurements: A self-evaluation of the effectiveness of the agency's enterprise architecture program, examples of contributions to beneficial outcomes, areas for improvement, and measurement of value using the attached template.
- IT Asset Inventory collection: A list of IT systems and applications that support mission, administrative, and commodity IT services.
-
- Major Investment Risks: An overview of operational and project risks for each major Investment. The risk section explains the uncertainties and challenges faced by the Department in executing its missions.

Integrated IT Governance Lifecycle Management

The Secretary and Deputy Secretary of Agriculture provide USDA's overall guidance and direction, with the Under Secretaries and Assistant Secretaries providing leadership in the seven Mission Areas and staff offices. The Chief Information Officer (CIO) has primary responsibility for overseeing and coordinating the design, acquisition, maintenance, use, and disposal of IT goods and services.

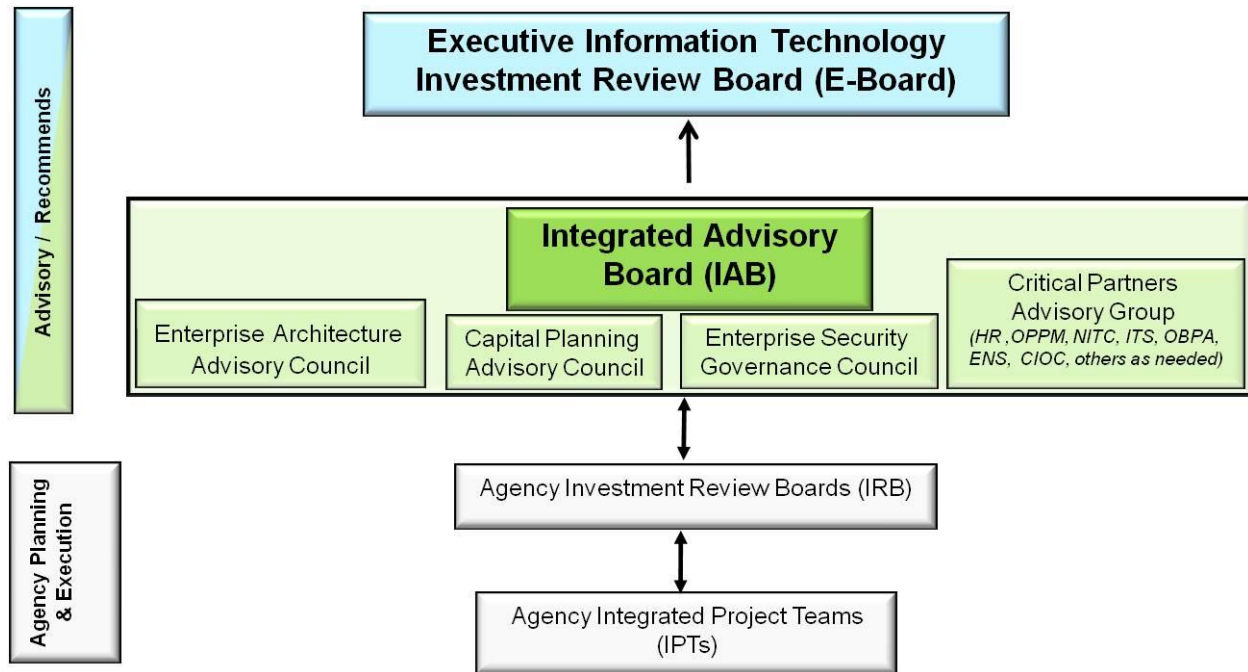


Figure 1: Enterprise IT Governance Management Structure

Through the implementation of an enterprise-wide IT governance process, the CIO brings together USDA Agencies, Staff Offices, and internal IT resources to promote department-wide technology innovations and operations that provide high-value return on investment. (Refer to Appendix D in the USDA IT Strategic Plan, titled “Governance Process”).

Architectural Leadership and Focus

For FY 2014, the USDA has set a particular focus on ensuring organizational improvement and leadership in the following areas:

- **Aging Infrastructure:** Aging equipment is a pervasive challenge across the Department and a primary focus of architectural efforts. For example, some of the core IT infrastructure for USDA’s Service Center Agencies (SCAs) has not been refreshed since their initial implementation in 2000. This includes more than 3,000 field office servers and thousands of network routers and switches, as well as, their associated voice communication infrastructure. Agencies affected by the outdated infrastructure include the Farm Service Agency (FSA), Rural Development (RD) and the Natural Resources Conservation Service (NRCS).
- **Fragmented Services:** Many services that are provided across USDA need to support a diverse set of organizations. This challenge has limited the ability to take advantage of economies of scale and has increased the resources required

to adequately manage needed capabilities.

2.0 Enterprise Architecture Overview

In today's budget environment, information technology (IT) must be leveraged to deliver innovative, cost-effective solutions to support the business delivery needs of USDA's mission areas. Our shared purpose is to realize rural prosperity, preservation and maintenance of forests and working lands, sustainable agriculture, and alternative, renewable fuels and bio-based products; however, the Department and its Agencies, as well as farmers, ranchers and agri-businesses in the United States will not thrive without advances in IT. To ensure the safe, effective, and efficient implementation and oversight of innovative IT solutions, the Office of the Chief Information Officer (OCIO), as part of USDA's Departmental Management (DM) organization, is transforming how the USDA and its stakeholders collaborate. For example, the USDA OCIO has already achieved great successes in support of the *Secretary's Blueprint for Stronger Service*, which focuses on streamlining the Department's administrative operations and reducing costs, through the successful consolidation of the Department's Enterprise Data Centers (EDC) and the implementation of cloud-based solutions, such as the Enterprise Messaging System (EMS) and USDA Connect, USDA is positioning itself to streamline geospatial data, deliver broadband access for rural America, and enhance career paths for cyber security and IT program management professionals.

3.0 Current USDA EA Program

This section of the Roadmap documents the activities associated with administering EA as an ongoing program.

The objective of the Roadmap is to provide an integrated view of current high priority business and administrative initiatives and supporting technology solutions. The highly decentralized structure of USDA, articulated in the USDA IT Strategic Plan means much of the EA work is done at the USDA agency or office level.

- **Applications - Artifacts:**
 - In February 2014, USDA updated its EA Program guidance to articulate the vision, common EA approach, requirements, and artifact to underpin the USDA EA efforts. These EA requirements covered investments, systems, and applications in the "As Is" architecture to ensure the department's alignment to the FEAF 2.0. Given the scale and scope of the USDA, the implementation will be a phased approach with initial focus on major investments. EA artifacts are now required and reviewed at every investment gate review in the lifecycle process. Specific outcomes and

measures are identified as part USDA's Outcomes and Measures Framework located in Appendix B.

- **Security and Privacy:**

- The IT security and Security Reference Model resources support the attainment of the strategic goals and initiatives; articulated in the "USDA IT Strategic Plan", reference the plan's section on Goal #4, which identifies security, security measurement, and analysis activities support each strategic objective of the USDA.
- This section of the Roadmap discusses a general approach to security reference modeling and measurements across all programs and is in alignment with the USDA EA framework. IT security shall be part of any strategic goal or initiative that depends on accurate, properly authenticated information, refer to Appendix B, Outcomes and Measures for security measurements. High-level descriptions are provided on how security is built into business services and the control of information flows, as well as the design and operation of systems, services, and networks. Specific IT security information is not a part of the IT Strategic Plan or Roadmap because it may divulge vulnerabilities. This type of information is made available upon request in an appropriately marked or document to which appropriately cleared personnel will have access.

- **Standards:**

- Consistent with Section 12(d) of Public Law 104-113, National Technology Transfer and Advancement Act of 1995," OMB Circular A-119 directs agencies to use voluntary consensus standards in lieu of government-unique standards except where inconsistent with law or otherwise impractical" and to submit a report describing the reason for use of government –unique standards in lieu of voluntary-consensus standards to OMB through NIST.
- In accordance with OMB direction, when selecting standards, USDA agencies consider "full account of the effect of using the standard on the economy, and of applicable federal laws and policies, including laws and regulations relating to antitrust, national security, small business, product safety, environment, metrication, technology development, and conflicts of interest.
- The objective of this effort is to promote interoperability, shared services, data management, and integration to establish improved levels of efficiency and use and reuse of technology.

-
- There is an explicit standards outcome in USDA's Outcomes and Measures Framework located in Appendix B.

Open Data Strategy

USDA's open data strategy is focused on optimizing content for mobile use, using open data and web APIs to further build capacity for public service innovation, and encouraging creative consumption of USDA's extensive resources, including the Department's high-value data, services, and systems.

In the past year, the USDA has focused its Open Data efforts on establishing a framework to enhance, enrich, and open, to the extent practicable, the USDA Enterprise Data Inventory (EDI). In so doing, the USDA has already achieved several Open Data milestones that have met and continue to meet the Office of Management and Budget's (OMB) Open Data requirements and the Department's internal requirements. These milestones have prepared the groundwork for the Department's future Open Data efforts and position the USDA and its Agencies to become a more transparent, collaborative, and effective organization. The following milestones are among the Department's recent Open Data achievements:

- **Creation of an Open Data Council (ODC):** The Open Data Council is composed of Executive Leadership from the Department and its Agencies, and is responsible for overseeing the implementation of the Federal Agency requirements outlined in the President's Open Data Policy, as expressed in *OMB Memorandum-13-13, Open Data Policy – Managing Information as an Asset*, along with all subsequent supplemental guidance.
- **Creation of an Open Data Working Group (ODWG):** The Open Data Working Group is composed of senior members from USDA's Office of the Chief Information Officer. The ODWG is primarily responsible for drafting and disseminating guidance to Agency Data Stewards, and for developing strategic and tactical implementation plans for the Department's Open Data effort.
- **Creation of an Open Data Policy Strategic Plan:** USDA's Open Data Policy Strategic Plan initiates the Open Data Policy for the US Department of Agriculture (USDA) by providing recommendations for coordinating and collectively responding to the mandates and milestones described in the Open Data Cross Agency Priority (CAP) Goal Establishment draft document and to other OMB related documentation in a structured and timely manner.

-
- Creation of an MS Project Master Project Schedule for Open Data: The Department's Open Data master schedule outlines the Department's initial approach to implementing the goals and objectives identified in its Open Data Policy Strategic Plan. The master schedule provides project milestones as well as a high-level overview of USDA's process for providing monthly and quarterly updates to its EDI.
 - Creation of an USDA.gov/data page: The USDA.gov/data page lists all of the Department's datasets by its component agencies. The USDA.gov/data page will be updated in the future based on Department directives and customer feedback.
 - Submission of USDA's EDI to the Office of Management and Budget (OMB) for the first and second quarters of the initiative (November 29, 2013 and February 28, 2014, respectively)
 - Posting of USDA Public Data Listing: USDA's Public Data Listing was published on the USDA.gov/data page on November 29, 2013. The Public Data Listing accounted for an initial listing of public datasets within the Department's EDI. The PDL was updated December 30, 2013 and February 28, 2014.
 - Creation of an Open Data Blog: USDA's Deputy CIO for Policy and Planning, drafted and posted USDA's first blog specifically focused on the Open Data initiative. Over the next year, USDA staff and leadership will periodically update the blog, which is intended to facilitate USDA's customer engagement and outreach efforts.
 - Update to USDA Digital Strategy: The updated USDA Digital Strategy page now includes additional information about USDA's on-going Open Data efforts, such as USDA's dataset publication process, Open Data milestones for FY14, and an overview of the USDA Open Data schedule.

The Open Data Working Group, Open Data Council, and Executive leadership convenes regularly to discuss the development of a USDA-specific Open Data Policy, standards, and outreach efforts, and to refine the Open Data publication. In addition, the Open Data Council, championed by USDA executive sponsors, is working with Agency CIOs to prioritize and oversee updates to the Department's EDI. The Open Data Working Group, in close collaboration with the Data Stewardship Working Group, meets regularly to ensure the successful execution of the Department's Open Data priorities, including monthly updates to the EDI.

Members of the USDA Data Stewardship Working Group (DSWG) will coordinate activities within their agencies to ensure application of reusable and common standards, and will ensure data stewardship accountability. Data will be managed as complete and current enterprise assets, and all data are included in the scope of this function.

In the future, USDA will modernize information systems to maximize interoperability and information accessibility by establishing a baseline portfolio, identifying, prioritizing, and releasing high-value data sets. The Department will also use Social Media and Customer Relationship Management (CRM) tools to engage with and gather feedback from internal and external customers regarding the efficiency and effectiveness of the Department's systems and services.

Digital Strategy

Following the Open Data Strategy detailed in 2.4, USDA will modernize information systems to maximize interoperability and open data availability by prioritizing high-value systems and services. OC will lead the Department's outreach and engagement with customers to assist in prioritization and provide regular feedback to continuously enhance our open data program. Collectively, we intend to utilize web analytics data, customer relationship management tools, and social media feedback to evaluate potential data, content, or system enhancements.

Mobile Strategy

The agricultural sector is introducing a new generation of mobile technologies designed to support our constituency by providing access to our services, programs, systems, and information any time, any place, and from any device. USDA must rise to the mobile technologies challenge by transforming our business delivery systems and our workforce to be effective in this new technological environment.

USDA will utilize existing processes to enable a mobile workforce. The Digital Strategy lead will review Acquisition Approval Requests (AAR) to ensure any new contracts, services, and initiatives are appropriately optimized for mobile. Additionally, the Digital Strategy lead will review IT projects throughout the life cycle through the IT Governance Process to ensure IT projects that are existing, new or under development include appropriate mobile optimization requirements and deliverables.

EA Value Measurement

This Enterprise Roadmap discusses how EA supports and improves the enterprise's strategic and business planning, as well as, identifies performance gaps that architectural designs can help close. By showing how resources are currently used, and

identifying useful new processes and technologies at each level of the framework, improvements in performance can be captured in the “To Be” EA views.

USDA leveraged the 2013 PortfolioStat and the quarterly OMB mandated Integrated Data Collection (IDC) to inform the current IT Asset Inventory. This effort enabled the categorization of investments and systems by their respective PRM, BRM, ARM, and DRM taxonomy codes. The asset inventory has enabled EA to perform the required analysis to identify potential duplicative systems, and performance gaps. It facilitates identifying potential in areas for strategic sourcing, enterprise licensing, cloud and/or shared services.

Quarterly Integrated Data Collection (IDC) continues to present opportunities to more fully populate the current architecture and to improve the data quality of the department’s portfolio. In 2014, USDA plans to populate the application, infrastructure, and data architectures utilizing the IDC.

Outcomes and Measurements

The question of EA value and how an agency measures the EA program’s value has no single set answer. The OMB’s Chief Enterprise Architect provided an EA Outcomes and Measures Template as one approach to measuring value. USDA has completed the OMB’s template and USDA has developed its own agency-specific EA Outcomes and Measures Template to better address its own measurement of EA value. Please refer to Appendix B for both of these completed EA Outcomes and Measures Templates.

Enterprise Architecture Maturity Model Framework

The Office of Management and Budget (OMB) directed that an enterprise architecture (EA) self-assessment be conducted in conjunction with the annual Agency Enterprise Roadmap submission. In light of this direction, USDA leveraged the Government Accountability Office (GAO) Executive Guide 10-846G *Organizational Transformation* to develop a USDA Enterprise Architecture Maturity Model Framework (EAMMF) self-assessment questionnaire. USDA Office of the Chief Information Officer (OCIO) requires USDA agencies to submit an EA self-assessment annually to benchmark USDA EA maturity.

USDA OCIO developed the EA self-assessment questionnaire in a Microsoft Excel 2007 based workbook. The USDA EAMMF Excel-based workbook was developed utilizing GAO’s EAMMFv2. Numerical calculations were added from known and proven inspection agency scoring criteria. This scoring criterion provides a comprehensive,

consistent, quantifiable, and repeatable process; that allows USDA and its agencies to develop mitigations for areas that require improvement.

Refer to Appendix A for the USDA EAMMF self-assessment questionnaire aggregated results.

Investments by USDA Mission Areas

- **Strategic Goals and Initiatives:**
 - The EA program and specific resources support the attainment of the strategic goals and initiatives; articulated in the “USDA IT Strategic Plan”. Reference the plan’s section on Goal #3, which identifies objectives that support each goal and initiative at the strategic level of the USDA.



Figure 2 Mission View

The USDA OCIO has identified eleven (11) High- Priority Modernization Initiatives and Investments that will offer broad benefit across the Department and enable its Agencies to streamline its services and modernize its infrastructure:

-
1. Modernize and Innovate the Delivery of Agricultural Systems (MIDAS)
 2. Conservation Delivery Streamlining Initiative (CDSI)
 3. Financial Management Modernization Initiative (FMMI)
 4. Web Based Supply Chain Management (WBSCM)
 5. Public Health Information System (PHIS)
 6. RMA-13 Emerging Information Technology Architecture (EITA)
 7. Animal Disease Traceability Information System (ADTIS)
 8. Resource Ordering Status System (ROSS)
 9. Comprehensive Loan Program (CLP)
 10. USDA Identity Access and Management (Homeland Security Presidential Directive-12 (HSPD-12))
 11. Enterprise Shared Service Telecommunication (Internet Protocol version 6 (IPv6))

Organizational View

USDA is composed of 19 agencies, which are organized into seven mission areas that carry out the Department's responsibilities and oversee its portfolio of Information Technology (IT) investments, which for FY 2014 consists of 24 major and 227 non-major IT investments, valued at roughly \$2.6 billion dollars.

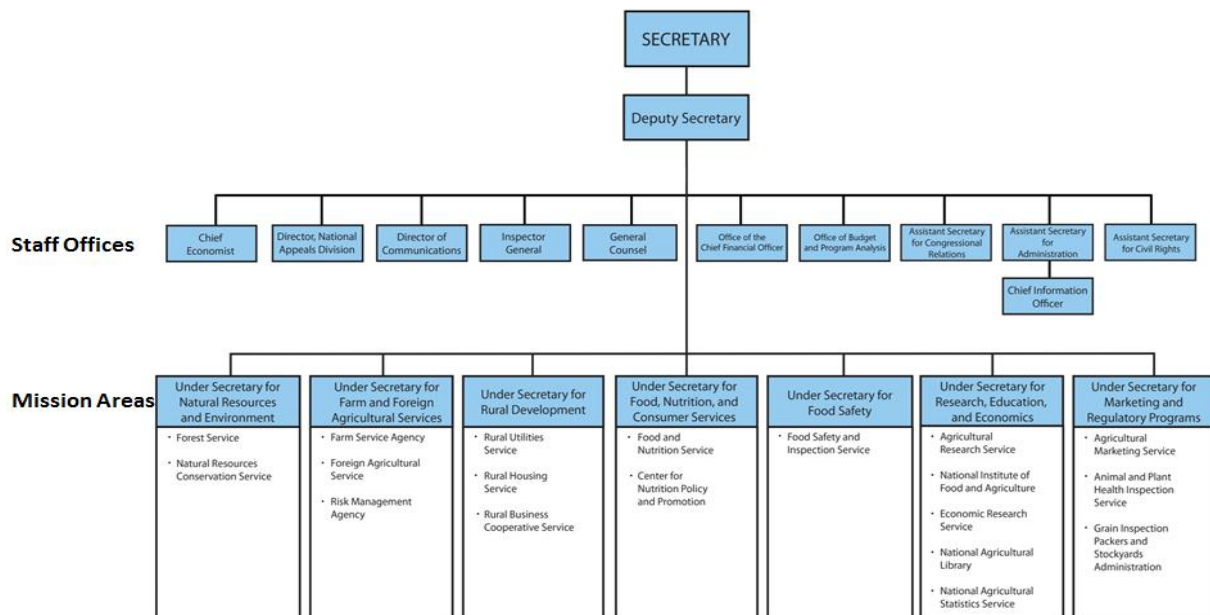


Figure 3 Organizational View

The following sections provide a snapshot of USDA's Investments, Business Needs, Current IT capabilities, requirements, and IT Benefits and Goals:

- **Business Need**: The Business Need column describes the issues, problems, gaps, and/or mandates that drive an investment. The information provided in this column describes why the investment is funded (e.g. Outdated or insufficient IT capabilities).
- **Current IT Capabilities**: The Current IT Capabilities column describes an investment's supporting infrastructure, as well as the capabilities, functionalities, and services it provides.
- **Requirements**: Requirements are derived from the specific operational and/or project needs that an investment must address. Requirements may include legislative mandates and/or specific project requirements to close IT capability gaps.
- **IT Solutions, Benefits, and/or Goals**: The technology solutions, benefits, and goals describe the advantages of the investment's planned outcomes.

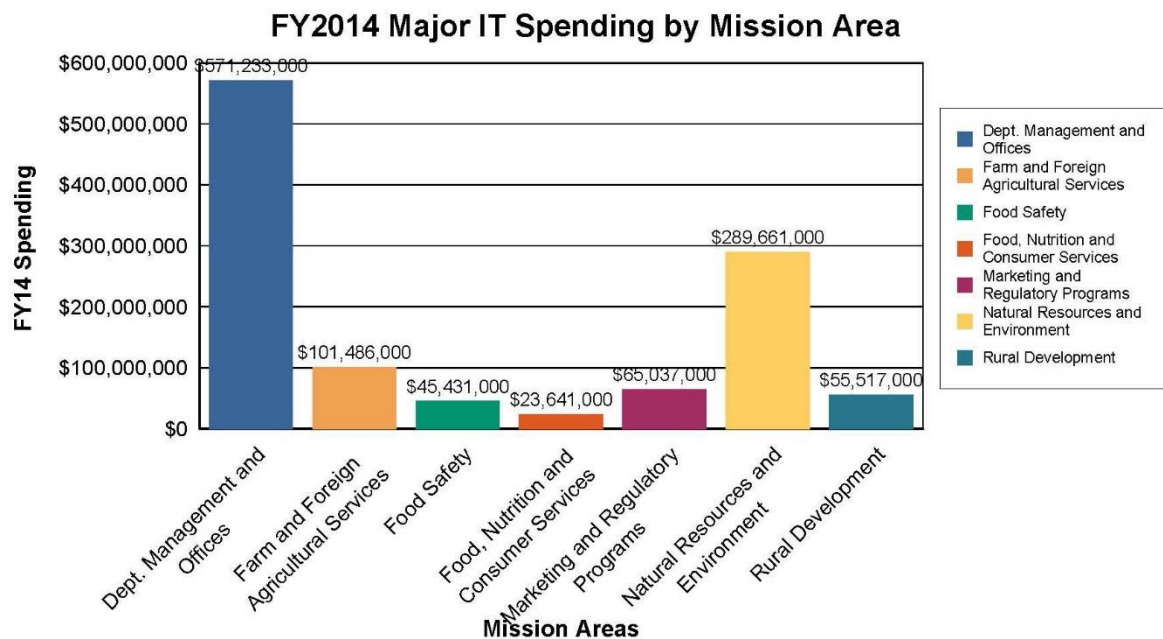


Figure 4: Major IT Investment Budgets by Mission Area

USDA's Major Investment Portfolio by Agency and Staff Office

USDA's investments have been organized into the Mission Areas and Agencies that manage the Department's 24 major IT investments. Descriptions of each of USDA's Mission Areas and Agencies have also been provided as context, and serve as a primer for the descriptions of USDA's major investment inventory.

Office of the Chief Financial Officer (OCFO)

The Chief Financial Officer serves as the principal advisor to the Secretary and senior official on all matters related to financial management. The Office of the Chief Financial Officer is responsible for the financial leadership of an enterprise with more than 100,000 employees, 14,000 offices and field locations, \$128 billion in assets, and \$77 billion in annual spending. The major functional components of the OCFO include: National Finance Center (NFC); Financial Operations; Continuity of Financial Management Planning; Working Capital Fund; Financial Systems; and Internal Controls and Process Evaluation.

OCFO oversees two (2) of USDA's 24 major IT investments.

Financial Management Modernization Initiative (FMMI)

As part of USDA's data center consolidation plan, the National Information Technology Center's (NITC) data centers and the National Finance Center (NFC) data center were designated by the USDA CIO as enterprise data centers under the USDA data center consolidation initiative. FMMI consolidates payroll, human resource, financial, and procurement systems at NFC's enterprise data center. Several systems were moved from NITC to NFC to accomplish this consolidation (FDW, CPAIS, MITS, ACRWS, IAS, and EmpowHR). The ACFO-FS has submitted applications to FIT for certification as a financial shared service provider.

CFMS, USDA's legacy financial system, was comprised of numerous financial systems maintained by agencies across the Department. These systems led to multiple financial processes across the Department and different reporting mechanisms. FMMI has consolidated the Department's financial data in a central database with common business processes. While there are still additional financial systems within USDA, these systems interface with FMMI and impact the common general ledger where all USDA financial reporting is supposed to originate.

The legacy CFMS financial system did not meet the requirements of the OMB FMLoB guidance. FMMI has helped USDA to close the following gaps associated with the legacy system:

- Compliance with the OMB directives;
- Consolidation of nine USDA general ledgers into one general ledger for the Department; and
- Existence of multiple financial systems.

The ACFO-FS is transforming the Department's financial processes through the implementation of FMMI, which consolidated multiple financial systems and created common financial processes across the department. As a result, ACFO-FS has continued to improve procedures for system maintenance and data consolidation, and has reduced the number of interfaces between systems. The FMMI investment entered into Operations & Maintenance-Steady State during FY13 and the retirement of CFMS, and maintains accurate financial data.

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
The need for improved financial performance through a modern financial system that provides maximum support to	FMMI is the Corporate Platform for Enterprise Financial Management for USDA.	Transition FMMI to O&M Steady State operations. Provide the following three-tier architecture: web	FMMI replaced CFMS and is replacing other financial management systems within the USDA.

<p>mission.</p> <p>This is consistent with the USDA s strategic plan management initiatives requiring a solution to:</p> <p>Provide a single, operational web-based system for USDA Agencies and Staff Offices and an enterprise-wide view of data;</p> <p>Standardize business processes;</p> <p>Implement leading practices;</p> <p>Provide reliable, relevant and timely data for general accounting, funds management and financial reports; and</p> <p>Enable single sign-on using USDA s eAuthentication system.</p>	<p>FMMI utilizes commercially available software with minimal modifications, and has a complex infrastructure that requires constant coordination for software updates.</p> <p>FMMI has transitioned to the Steady State phase of the project and has replaced the previous core accounting system FFIS.</p> <p>FMMI provides high-speed data analytics that combines financial and program data, centralizes and standardizes financial management and reporting, reduces redundant financial systems across the agency, and offers a single source of the truth for USDA financial reporting.</p>	<p>access tier, application tier and database tier.</p> <p>Provide both real-time and point-in-time web-based reporting of financial activity.</p> <p>Provide a robust data exchange capability for real-time service oriented services and batch interfaces.</p>	<p>FMMI provides a modern, centralized financial management system for the Department.</p> <p>FMMI provides opportunities for the following programs:</p> <ul style="list-style-type: none"> • MIDAS • IPAS • CLP • NRCS Enterprise • Financial Management systems • CREEMS <p>The programs listed above interface with the FMMI system, which results in the following benefits to these programs:</p> <ul style="list-style-type: none"> • Streamlined processes; and • Real Time access to data, as opposed to periodic batch processing. <p>MIDAS is intended to align with Office of the Chief Financial Officer's (OCFO) Financial Management Modernization Initiative (FMMI) investment. It will accomplish increased compliance with modern internal control structures and effectively implement improved IT security.</p> <p>Gaps that FMMI has closed include:</p> <ul style="list-style-type: none"> • Compliance with the OMB directives; • Consolidation of nine general ledgers into one within USDA. • Retired multiple financial systems.
--	---	---	---

National Finance Center Shared Services (NFC-SS)

The National Finance Center Shared Services (NFC SS) investment is managed by the National Finance Center within USDA's Office of the Chief Financial Officer (OCFO).

USDA is experiencing rising software maintenance costs that directly correlate to vendor pricing and economic conditions. To mitigate these rising costs, NFC has

partnered with the Department on enterprise software contract vehicles, such as the Microsoft Enterprise Agreement. In addition, NFC has partnered with vendors, such as Oracle, Red Hat, Computer Associates, IBM, and VMware, to negotiate better prices for software and services.

The National Finance Center (NFC) has contributed to costs savings by improving rapid provisioning through the following mechanisms:

- Awarded Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts for servers and network infrastructure, so orders can be placed directly against these contracts, which resulted in reduction of procurement time by over 60%;
- Awarded System Engineering and Technical Assistance (SETA) contract for contractor support; which led to reduction time to get contractor support by 50%;
- Established enterprise Microsoft SQL and Oracle database clusters to share resources which reduced the need to procure new licenses; and
- Completed virtualization of the Linux and Windows server environments that also reduced the need to procure hardware for many new requirements.

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
<p>To provide reliable and secure IT systems to its customers as an approved Shared Service Center (SSC) under the OPM Human Resources Line of Business (HRLOB).</p> <p>Provide a hosting infrastructure to support USDA's Financial Management Line of Business (FMLOB) for 3 general support systems and 9 major applications NFC's inventory.</p>	<p>NFC's shared services offering is scalable, flexible, and facilitates data extraction.</p> <p>It provides the capability for users to extract data in multiple formats and for a range of uses, including as internal and external needs change and potential uses not accounted for in the original design.</p>	<p>NFC follows the OPM requirements for EA.</p> <p>The NFC SS investment must also conform to the requirements identified in the following documents:</p> <ul style="list-style-type: none"> • Security National Institute of Standards and Technology (NIST) Special Publication 800-53; • Federal Information Security Management Act (FISMA); • OMB Circular A-130; Privacy Act, Government Information Security Reform Act; and, • Federal and Departmental security regulations, policies, standards, guidelines and applicable laws. 	<p>The National Finance Center (NFC) serves the USDA and other Federal organizations by providing reliable, cost effective, employee-centric systems and services thus allowing customers to focus on serving this mission delivery.</p> <p>The NFC SS investment gives NFC the ability to offer reliable and secure information technology systems to its customers as an OPM approved Shared Service Center (SSC) provider under the OPM Human Resources Line of Business (HRLOB). The investment also provides hosting infrastructure to support USDA's Financial Management Line of Business (FMLOB) service offering as well as other USDA corporate financial, administrative, and procurement systems.</p>

Departmental Management

Departmental Management (DM) is USDA's central administrative management organization. DM's mission is to provide management leadership to ensure that USDA administrative programs, policies, advice and counsel meet the needs of USDA program organizations, consistent with laws and mandates; and provide safe and efficient facilities and services to customers.

Departmental staff offices provide essential support, without which other Departmental agencies and programs would be severely hindered in their ability to carry out their duties.

The USDA DM is organized into 10 core offices, which provide support to policy officials of the Department, and overall direction and coordination for the administrative programs and services of USDA. Departmental Management's 10 core offices are, as follow:

- Office of the Administrative Law Judges (OALJ)
- Office of Advocacy and Outreach (OAO)
- Office of Chief Information Officer (OCIO)
- Office of the Executive Secretariat (OES)
- Office of Homeland Security & Emergency Coordination (OHSEC)
- Office of Human Resource Management (OHRM)
- Office of the Judicial Officer (OJO)
- Office of Operations (OO)
- Office of Procurement & Property Management (OPPM)
- Office of Small & Disadvantaged Business Utilization (OSDBU)

Departmental Management oversees six (6) of USDA's 24 major IT investments, including two (2) high-priority initiatives: HSPD-12 and IPv6. Figure 5 provides a detailed breakdown of Major IT Spending by DM and OCFO

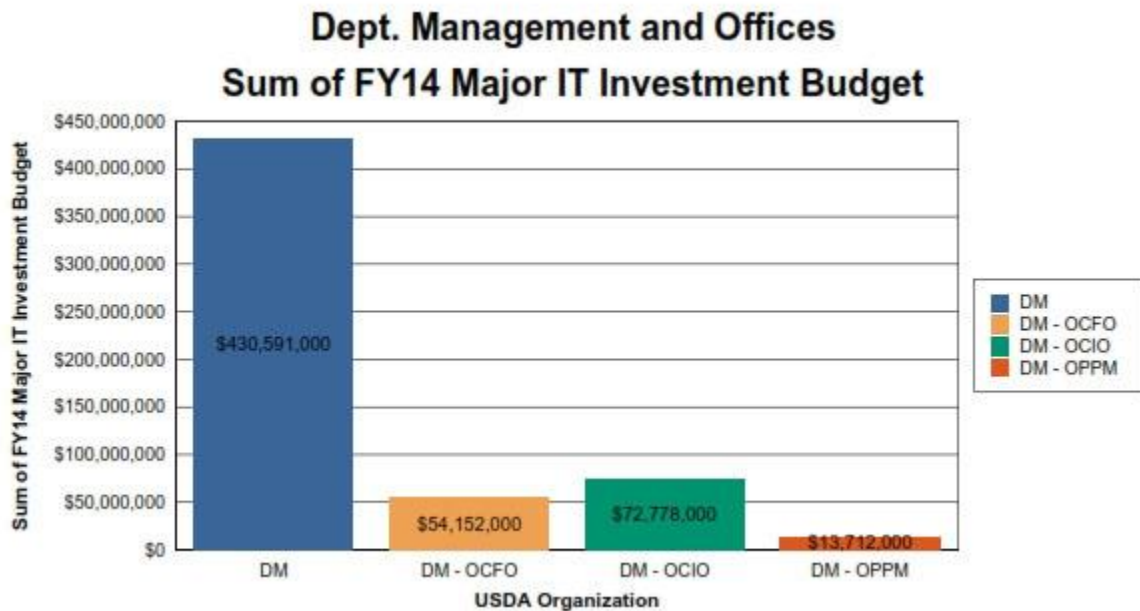


Figure 5: Departmental Management and OCFO Major IT Spending by Organization

Major IT Investment Name	PRM Strategic Goal	FY14 Budget
Integrated Acquisition System (IAS) (OPPM)	P00.000.411	\$13,712,000
USDA Enterprise Messaging Systems-Cloud Services (EMS-CS)	P00.000.411	\$14,596,000
USDA Enterprise Data Center & Hosting Shared Services	P00.000.411	\$87,222,000
USDA Enterprise Telecommunications Shared Services	P00.000.411	\$21,071,000
USDA Enterprise End User Shared Services (EUSS)	P00.000.411	\$215,123,000
NFC Shared Services- IT Systems (Managed by OCFO NFC)	P00.000.411	\$92,579,000
Financial Management Modernization Initiative (FMMI) (Managed by OCFO NFC)	P00.000.411	\$54,152,000
USDA Identity and Access Management	P00.000.411	\$15,740,000
Optimized Computing Environment (OCE)	P00.000.411	\$29,038,000
USDA Security Operations Center (SOC)	P00.000.411	\$28,000,000
Departmental Management and Offices FY14 Major IT Investment Budget Sum		\$571,233,000

The Current Architectures for DM's major investments are provided in the following sub-sections (3.10.2.1-3.10.2.8).

Optimized Computing Environment (OCE)

The Optimized Computing Environment (OCE) investment is managed by the International Technology Services (ITS) division within USDA's Office of the Chief Information Officer (OCIO).

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
To modernize the current SCA technology infrastructure, and significantly improve the quality and productivity in the delivery of SCA services to customers.	<p>The current ITS infrastructure environment is characterized by a very limited ability to support future SCA program delivery. This situation stems from the following three key drivers:</p> <ol style="list-style-type: none"> 1. Underinvestment in infrastructure; 2. Higher operational costs; and 3. Fewer funds available for infrastructure refresh. 	<p>The OCE is a multi-year program that consists of sub-projects that support the following areas.</p> <ol style="list-style-type: none"> 1. SCA Network Enhancements; 2. SCA End User Infrastructure; 3. SCA Remote Computing Capability; and 4. SCA Enterprise Mobility Solution. <p>The specific objectives of the OCE are to:</p> <ol style="list-style-type: none"> 1. Support the delivery of the current and future Farm Programs and other customer agency programs; 2. Support the basic IT infrastructure needs of customer agencies (e.g., phone systems); 3. Meet the internal and external requirements for secure and effective IT infrastructure services; and 4. Reduce the cost of IT infrastructure services. <p>These objectives address what the SCA's must deliver as well as the level of service or performance required in delivering those services.</p>	<p>The OCE investment will streamline and modernize the back-end and office infrastructure to support SCA modernization initiatives.</p> <p>It will provide Solid Core Infrastructure Accelerate Performance and Service Standardize & Advance Technology Right-Size Systems to achieve the following results:</p> <ol style="list-style-type: none"> 1. Meet Individual Business Needs; 2. Minimize Business Service Outages; and 3. Realize ROI and Minimize Recurring Costs. <p>The purpose of optimizing the computing environment, enhancing mobility support, and replacing the aging infrastructure is to ensure that the core infrastructure meets the demands of the SCA application modernization requirements.</p>

3.1.1.2 USDA Identity & Access Management (IAM)

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
<p>To ensure physical and logical access to its infrastructure.</p>	<p>IAM is an enterprise-wide collection of access components, providing storage and a means for controlled distribution of identification information for use by logical systems (login access to controlled USDA websites), personal computer hardware (access to desktops and laptops with card readers), and buildings and facilities (physical access via access control systems to controlled-entry facilities).</p> <p>IAM controls physical access to over 209 Federal buildings and offices, and controls logical access to over 450 USDA agency web applications.</p> <p>IAM includes the necessary support processes for issuance of Homeland Security Presidential Directive-12 (HSPD-12) compliant identification to USDA federal employees, associate employees and contractors.</p> <p>The IAM program also provides a centralized system for each access type (physical and logical), while allowing the agencies to manage access locally.</p>	<p>The IAM investment is funded with the following requirements:</p> <ul style="list-style-type: none"> • Migrate 458 USDA agency applications from the legacy eAuthentication environments to the modernized eAuthentication service within the NITC EDC. • Supplement inter-agency Credential Exchange functionality with the collection, maintenance, and exchange of digital identity data and enable secure attribute sharing with Federation partners including Health and Human Services and the Department of Justice as customers of the National Finance Center. • Provide APHIS and RD customers/users the ability to be identity proofed remotely through the use of a service. <p>Accept credentials (such as PIV) issued to other federal departments as an authentication mechanism for eAuthentication.</p> <p>Migrate from the current Consolidated Help Desk provider (IBM) to a new one.</p> <p>Provide a technical solution for creating and authenticating PIV-derived credentials.</p>	

3.1.1.3 USDA Security Operations Center (ASOC)

Securing our nation against cyber-attacks has become one of the nation's highest priorities. As the organization charged with the responsibility for ensuring the Department's ability to support the national food supply chain, the agriculture economy, research and development, and an active loan portfolio of more than \$120 billion, the Security Operations Center understands the importance of securing the data and systems within this complex environment.

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
The Agriculture Security Operations Center (ASOC) meets the Department's need to instill a mature USDA IT Security Program. ASOC was initially created to develop an enterprise-level operating picture of USDA security. In addition, ASOC has assumed the system authorization responsibilities, and by re-constituting the role of Chief Information Security Officer, strengthens the overall management of USDA's IT Security Program.	Security core capabilities include: <ul style="list-style-type: none"> • COMSEC; • Incident Handling • Compliance; • Threat Monitoring; • Security Reporting; • Scanning; • Forensics; • Assessment and Authorization; • Information Security Awareness Training • Outreach; • Penetration Testing; • Operational Assessments; • Security System Services; • Information Security Specialized Training; and • Devolution Support. 	<p>Appropriated funding was provided for ASOC in 2010 to support these mission critical initiatives:</p> <ol style="list-style-type: none"> 1. Conduct Network Security Assessments to analyze the state of USDA's network to identify vulnerabilities; 2. Procure and Deploy Tools for enhanced monitoring and detection; and 3. Establish an Agriculture Security Operations Center to monitor and protect USDA's systems. <p>Other ASOC core requirements are, as follow:</p> <ul style="list-style-type: none"> • Perform monitoring, threat/vulnerability/risk analysis, incident response, operational status, and forensics using state of the art tools and techniques; • Continually monitor, assess and facilitate the remediation of critical security issues across USDA; • Enhancing real time awareness of emerging threat and vulnerabilities; • Leveraging industry leading tools to facilitate proactive, real-time tracking and 	<p>The Agriculture Security Operations Center is designed to make USDA business resilient to risks by proactively collaborating with USDA Chief Information Officers (CIOs) to constitute a suitable security baseline, identify mitigation tactics for resolving pain points, and strategize action plans for advancing the security services.</p> <p>The Security Sensor Array (SSA) is utilized to manage risks, issue alerts and coordinate mitigation efforts on a 24x7x365 basis.</p> <p>Threat Analysis and Threat Awareness provides a 24x7 operations and Threat Analysis Center (highly technical support from Tiers 2 through 4). The ASOC develop situational awareness capability for USDA by correlating data from ASOC network and endpoint sensors.</p> <p>The Tivoli Endpoint Manager allows ASOC the ability for creation of multiple groups for easier patch deployment and granular management of endpoints.</p> <p>Operational Assessments are conducted to provide all USDA agencies with an agency risk profile.</p> <p>ASOC has identified and filled an existing void in communicating the urgent</p>

		configuration management of client computers desktops and laptops) to mitigate security vulnerabilities; <ul style="list-style-type: none"> • Providing enterprise-wide tools and support to meet evolving security needs; • Ensuring all FISMA requirements are documented as Departmental policies and procedures. • Monitoring dedicated security network with granular control of security infrastructure; and • Blocking threats and reduces risks to Agency assets and users where the Department's network is connected to the Internet. 	and compelling needs of Security across the USDA enterprise. By development of the ASOC Software Update Notices and the ASOC Situational Awareness Reports, critical event and issue data is shared with agencies in a repeatable and dependable format, informing agencies on the appropriate and necessary actions to take to reduce risks posed by new or emerging threats, focusing agency CIO's and IT personnel on enterprise cyber security risk in a consistent manner.
--	--	--	---

Integrated Acquisition System (IAS)

The IAS Program was initiated to solve several enterprise administrative business problems at USDA. The fundamental business issue was that acquisition management across USDA was performed with multiple legacy systems that supported mostly manual, paper-based processes. These acquisition processes were not standardized and reflected relatively loose financial controls. Further, these processes, which differed widely from agency to agency, were supported by acquisition systems with either unreliable interfaces or no interfaces to the core financial management system. As a result, the USDA acquisition environment was extremely fragmented from both a systems and process perspective. The USDA determined that the solution to the Department's acquisition management issues was a single enterprise-wide acquisition management system - the Integrated Acquisition System (IAS).

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
USDA's acquisition need is to provide the following functions: <ul style="list-style-type: none"> • A real-time interface to USDA's core financial systems; 	IAS operates in a Web browser-based environment. The current technical architecture utilizes Compusearch PRISM server, an Oracle applications server, and an	As an IT system management program, IAS must also comply with federal IT management requirements. To satisfy regulatory compliance, IAS implements functionality	IAS is an enterprise-wide solution utilized by all USDA agencies to procure goods and services providing delivery support of USDA mission critical programs. IAS aids in realizing the

<ul style="list-style-type: none"> • Reliable data; • System administration and reporting; • Electronic requisition processing and contract management; • A reduction in procurement cycle times; and • Extensibility and scalability to support more advanced strategic and standardized acquisition management practices across the Department <p>The OPPM has I has SLA's with the following organizations in place to support IAS:</p> <ul style="list-style-type: none"> • National Finance Center (NFC) IAS Hosting Support • International Technology Services (ITS) Help Desk Server Hosting SharePoint • Washington Communications and Technology Service (WCTS) PSD Help Desk Support 	<p>Oracle database server hosted at NFC in Denver, Colorado.</p> <p>To support IAS future releases, change requests, and disaster recovery, the IAS technical architecture also includes hardware and software components located at NFC's backup computing facility in St. Louis, Missouri.</p> <p>IAS interfaces to seven (7) systems:</p> <ul style="list-style-type: none"> • Financial Management Modernization Initiative (FMMI); • Invoice Processing Platform (IPP); • Federal Procurement Data System-Next Generation (FPDS-NG); • Financial Data Warehouse (FDW) Procurement Data Mart (PDM); • Enterprise Content Management (ECM); • Forest Service (FS) Document Look-Up Tool; and • eAuthentication (eAuth). <p>IAS also interfaces with FPDS-NG, which is a congressional database established to collect historical and statistical information about the federal government's procurements. IAS feeds award information directly to FPDS-NG in order to satisfy mandated reporting requirements.</p> <p>IAS supplies procurement data for reporting purposes to the FDW PDM, as well as copies of invoices for storage in the ECM system.</p> <p>Lastly, IAS interfaces with the USDA eAuthentication platform to provide a single sign-on feature for users in compliance with USDA standards for enterprise</p>	<p>and business processes needed to remain current with all Federal acquisition management mandates. The common sources for these requirements are the following:</p> <ul style="list-style-type: none"> • Federal Acquisition Regulation (FAR); • OMB Exhibits 300 and 53; • OMB Circular A-123; • OMB Circular A-130 (Appendix III); • Federal Funding Accountability and Transparency Act (FFATA) Clinger Cohen Act (CCA); • Federal Acquisition Reform Act (FARA); • Federal Acquisition Streamlining Act (FASA); and • United States Rehabilitation Act. <p>IAS needs funding to:</p> <ul style="list-style-type: none"> • Perform Daily systems performance monitoring, release planning and management, data fix, software testing, and code migration support; • Interfaces management – daily monitoring of procurement data transactions to and from FMMI and FPDS-NG, along with the IAS/IPP interface support; • IAS Help Desk and Website Maintenance – operations and management of user call center and website; • Security Compliance – annual OMB, NIST, FISMA and A123 testing requirements; system scanning and 	<p>following benefits for the Department:</p> <ul style="list-style-type: none"> • Facilitates strategic sourcing initiatives to lower purchasing costs; • Ensures reliable and accurate Department-wide procurement-related financial information; • Reduces costs incurred associated with Prompt Pay interest and allows USDA to capitalize on the Treasury's Invoice Processing Platform (IPP); • System support for improved internal controls for procurement processes and policy; • Enables reporting capabilities to satisfy data calls to support executive and congressional reporting requirements; and • Reduces redundant data entry among multiple systems. <p>With FMMI, IAS checks for funds availability, commits and obligates funds real-time, and allows users to authorize vendor payment. FMMI is the replacement for the Foundation Financial Information System (FFIS), which was the previous financial system in which IAS interfaced. FMMI is a more modernized, user-friendly and web-enabled tool with robust reporting and viewing capabilities.</p>
---	---	--	---

	systems.	monitoring and Certification and Accreditation (C&A); and <ul style="list-style-type: none"> Capital and Strategic Planning – Exhibit 300, AAR, OMB reporting requirements and Agency reporting requirements support. 	
--	----------	--	--

USDA Enterprise End User Shared Services (EUSS)

The Enterprise End User Shared Services (EUSS) investment is managed by the International Technology Services (ITS) division within the Office of the Chief Information Officer (OCIO).

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
The USDA requires a secure, modern and usable End User Computing Infrastructure for the Service Center Agencies to communicate and process information, both within USDA, and with public it they serve.	The investment provides full support to approximately 40,000 end users located in approximately 3,000 offices across the United States and its territories.	As information and communication needs grow and evolve, the infrastructure needs to be maintained, operated, and adapted to current, secure and modern supportable technologies.	<p>This investment will expand IT services across the Department and will eventually assist all 120,000 USDA employees.</p> <p>This investment provides the following technical support: hardware and software support for workstations and end user devices; server administration; network management; equipment inventory and tracking; telephony, and other forms of communications; and security.</p> <p>USDA employees will benefit from having better access to information, improved collaboration and information sharing. Services fees are spread equitably back to customers.</p>

USDA Enterprise Data Center & Hosting Shared Services

The USDA Enterprise Data Center & Hosting Shared Services is one of USDA's new Major IT Investments.

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
Enterprise hosting and data center operations, such as the need to provide private cloud solutions for mainframe, mid-tier and legacy mid-tier web hosting environments.	<p>The USDA Office of the Chief Information Officer's National Information Technology Center (OCIO-NITC) offers world-class data center hosting services to accommodate the business goals and technology requirements from federal, state and local government customers.</p> <p>The NITC provides secure, reliable, scalable, shared and cost effective IT hosting solutions.</p> <p>The hosting environment meets or exceeds the federal security requirements for FISMA high, moderate and low impact systems.</p> <p>The Enterprise Data Center currently offers a full range of services including: cloud, managed and collocated hosting services; professional services; and, specialty security services. Cloud services, both private and public, include standardized Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS) offerings to achieve programmatic and technical innovation for clients.</p> <p>Public cloud solutions from private sector vendors are available.</p>	<p>Support the Federal Data Center Consolidation Initiative.</p> <p>Adhere to the NIST Definition of Cloud Computing (NIST Special Publication 800-145) NIST Cloud Computing Reference Architecture (NIST Special Publication 500-292), NIST Cloud Computing Security Reference Architecture (NIST Special Publication 500-299 draft), Guide to Applying a Risk Management Framework to Federal Information Systems (NIST Special Publication 800-37, Rev 1), Security and Privacy Controls for Federal Information Systems and Organizations (NIST Special Publication 800-53), and Secretary Memorandum Numbers 1509 & 1776.</p> <p>Maintain the high service quality levels provided to customers (i.e., USDA and other Federal) for mainframe services, and mid-tier private cloud hosting services;</p> <p>Support USDA Service Center Agencies in their application migration from the legacy web farm hosting platform;</p> <p>Consolidate networks;</p> <p>Consolidate security administration; and</p> <p>Expand the customer base by providing cost effective hosting services through a state-of-the-art, multi-tenant, sustainable Federal data center.</p>	<p>As a FedRAMP compliant CSP (Agency ATO), the EDC investment has targeted the following goals:</p> <ul style="list-style-type: none"> Accelerate the adoption of secure cloud solutions through reuse of assessments and authorizations; Increase confidence in security of cloud solutions; Achieve consistent security authorizations using a baseline set of agreed upon security standards; Ensure consistent application of existing federal security practices; and, Increase confidence in security assessments for customers. <p>USDA's FDCCI IT Portfolio goals include the following targets:</p> <ul style="list-style-type: none"> Promote the use of Green IT by reducing the overall energy and real estate footprint of government data centers; Reduce the cost of data center hardware, software and operations; Increase the overall IT security posture for the government; Shift IT investments to more efficient computing platforms and technologies; and, Achieve the goals of

			USDA's Green Information Technology Strategic Plan published January 12, 2009.
--	--	--	--

USDA Enterprise Messaging System-Cloud Services (EMS-CS)

The Enterprise Messaging System – Cloud Services (EMS-CS) is managed by the International Technology Services (ITS) division within USDA's Office of the Chief Information Officer (OCIO).

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
<p><i>The ability to communicate via industry standard e-mail technology, both within the Department, and to other public and private entities.</i></p> <p><i>Additionally, the ability to share information, collaborate, store and exchange electronic correspondence, and transfer files.</i></p>	<p><i>Current Business needs are being met via a cloud delivered service that encompasses a dedicated (isolated) instance of Microsoft Office 365. The software as a service deployment includes Exchange Online for messaging and calendaring, SharePoint Online for document collaboration, Office Communicator Online/Lync for instant messaging, presence, including voice and presentation sharing and Office Live Meeting for web conferencing. USDA employees have benefited from having better access to information, a consolidated Department wide directory, improved collaboration and information sharing. Key Stakeholders are the CIO office and International Technology Service (ITS).</i></p>	<p><i>Requirements are being met by the current capabilities. USDA has the ongoing requirement to continue to operate, sustain, and evolve the environment in an efficient and secure manner. As additional capabilities are included in vendor included version upgrades of the cloud solution, USDA will continue to leverage the enhanced functional and security features.</i></p>	<p>EMS-CS consolidated 120,000 users spread across 21 email systems to one cloud offering by Microsoft Online Services. This streamline resulted in reduced costs and improved efficiencies that build on existing infrastructure and allow USDA to extend its on-premise software investments agreements to the cloud solution.</p> <p>In addition, the consolidation resulted in reduced costs, improved efficiencies and streamlined services, built on existing infrastructure. This allowed USDA to extend its on-premise software investments to the cloud solution. USDA employees benefit from having better access to information, improved collaboration and information sharing.</p>

USDA Enterprise Telecommunications Shared Services

The Universal Telecommunications Network (UTN) was initially deployed in 2001 to provide USDA with a Trusted Internet Connection (TIC) capability. In FY07 through FY09 OCIO developed to acquire the Next Generation (NG) of Wide Area Network (WAN) referred to as the "Unified Telecommunications Network – Next Generation (UTN-NG)," which commenced the transformation and enhancement of both WAN and TIC services under GSA's Networx Universal Contracts. In FY13, USDA reclassified

the UTN-NG as a “major IT Investment” and renamed it USDA Enterprise Shared Services as a part of the commodity IT consolidation strategy. This investment is considered USDA’s Wide Area Network (WAN) solution, and all departmental and agency Local Area Networks (LAN) are configured to pass traffic through the WAN’s Trusted Internet Connections (TIC).

Business Need(s)	Current IT Capabilities	Requirements	IT Benefits and Goals
<p>Provide a trusted internet connection capability.</p>	<p>The Universal Telecommunications Network (UTN) Next Generation (NG) provides shared network services, used by all of USDA including U.S. Public, providing Trusted Internet Connection (TIC) and Security Operations Capability.</p> <p>The Unified Telecommunications Network (UTN) a managed services solution, is the USDA enterprise-wide backbone to the Internet and data centers for all USDA agencies and provides the contract mechanism for USDA agencies to procure network services such as access circuits, virtual private networks, network monitoring, etc.</p> <p>UTN-NG is the backbone that enables such critical public-facing USDA systems as the Farm Loan Program, Public Education Materials (e.g., Food Pyramid, Food Safety), School Lunch Program, Food Stamp Program, and Forest Service Incident Response Dispatch Service (ROSS), etc. USDA envisions increased use of and reliance upon UTN-NG well into the future.</p> <p>UTN-NG is consistent with the Departments enterprise architecture goal of replacing multiple, redundant systems and technology components with coordinated, enterprise-wide approaches and is documented in the USDA Enterprise Architecture Transition</p>	<ul style="list-style-type: none"> • Adhere to legislative mandate M-05-22; • Plan USDA transition to Internet Protocol version 6 (IPv6); • Support the Telecommunications Network Stabilization and Migration Procedure (TNSMP); • Support Departmental and Unplanned Waiver Process; • Maintain the Forecast Inventory Resources database; • Manage operations of telecommunications services; • Manage the Department’s Enterprise Backbone Network and Internet Access; • Manage of Domain Name Services, IP addressing and other shared Departmental network/data services; • Provide engineering and project assistance to USDA agencies and staff offices; • Provide network modeling, analyses and optimization; • Provide network design and development assistance to USDA agencies and staff offices; • Implement, manage and maintain USDA Telecommunications 	<p>This investment supports the following Homeland Security mission area: Protection of critical infrastructure and key assets.</p> <p>UTN has enabled USDA's migration from stove piped network solutions toward an enterprise approach that maximizes the collective buying power to realize best value in telecommunications services.</p> <p>Since deployment, this investment has achieved great success, consistently exceeding initial performance expectations in terms of availability, reliability, network security, bandwidth, and in documented customer satisfaction. The UTN architecture has proven sufficiently flexible to readily absorb new mandates from USDA or OMB, such as new IT security requirements, Trusted Internet Connection (TIC) and IPv6.</p> <p>This investment provides the next generation of enterprise-wide services such as email, enterprise messaging, data center consolidation, and secure video conferencing, and common VPN usage.</p>

	Strategy.	<p>Programs through its department-wide telecommunications and network security services and operations;</p> <ul style="list-style-type: none"> • Develop and coordinate technology programs of the Federal Government and related activities and organizations; • Provide guidance and facilitate governance for efficient and cost-effective use and management of USDA telecommunications resources; and • Lead the Department's effort to improve telecommunications services and reduce costs by evaluating and improving USDA telecommunication processes. 	
--	-----------	---	--

Farm and Foreign Agricultural Services

Farm and Foreign Agricultural Services helps to protect America's farmers and ranchers in business as they face the uncertainties of weather and markets. The FFAS mission area delivers commodity, credit, conservation, disaster, and emergency assistance programs that help improve the stability and strength of the agricultural economy.

The FFAS mission area contributes to multiple USDA Strategic Goals. Specifically, to assist rural communities, the FFAS mission area: (1) supports a strong financial safety net including providing access to credit for farmers and ranchers who are temporarily unable to obtain commercial credit such as beginning farmers and socially disadvantaged farmers and ranchers; and (2) promotes the vitality of rural America by improving access to international markets, providing credit guarantees for U.S. farm exports, and supports industry efforts to develop new markets. In support of ensuring private working lands are preserved, the FFAS area: (1) protects watershed health to ensure clean and abundant water; and (2) enhances soil quality to maintain productive working cropland. Finally, in support of agricultural production, FFAS promotes the international acceptance of new technologies, and promotes sustainable, productive agricultural systems and trade in developing countries to enhance global food security. The work of the FFAS mission area is carried out by its three agencies:

-
- Farm Service Agency
 - Risk Management Agency
 - Foreign Agricultural Service

Farm Service Agency (FSA): The Farm Service Agency (FSA) ensures the well-being of American agriculture, the environment, and the American public through the administration of farm commodity programs; farm ownership, operating, and emergency loans; conservation and environmental programs; emergency and disaster assistance; and domestic and international food assistance. FSA programs are delivered through an extensive network of field offices in 2,248 USDA County Service Centers and 51 State Offices. FSA oversees two (2) of USDA's 24 major investments, including the Farm Program Modernization (MIDAS) #097, one (1) of the Department's eleven (11) high-priority modernization initiatives.

As part of the 2015 budget, FSA is developing a "Model Service Center" concept that will result in service centers that are better equipped, better staffed, and will provide improved service to customers. FSA will be able to deliver programs more efficiently with streamlined business processes and a reduced national footprint. FSA is continuing to modernize its information technology (IT) systems, moving away from unreliable, obsolete systems in order to provide more efficient and reliable services to producers. Billions of dollars of annual farm program payments, conservation payments, and loans to producers have been dependent upon antiquated IT systems.

Foreign Agricultural Service (FAS): The Foreign Agricultural Service (FAS) works to improve foreign market access for U.S. products and administers market development and export financing programs. FAS helps U.S. exporters develop and maintain markets overseas for U.S. food and agricultural products. FAS helps developing countries improve their agricultural systems and build their trade capacity.

Risk Management Agency (RMA): The Risk Management Agency (RMA) administers the Federal Crop Insurance Corporation (FCIC) programs and promotes national welfare by improving the economic stability of agriculture through a secure system of crop insurance and risk management tools. Through a network of public and private sector partners, RMA creates crop insurance and risk management products; provides risk management education and outreach; and ensures program accessibility and integrity. RMA manages *RMA-13 Emerging Information Technology Architecture (EITA)*, which is a major investment and one of the Department's eleven (11) high-priority modernization initiatives.

Overall, the Farm and Foreign Agricultural Services administer four (4) of USDA's 24 major IT investments, including one (1) of its high-priority initiatives. Figure 6 provides a detailed breakdown of the FFAS mission area's major IT investment spending.

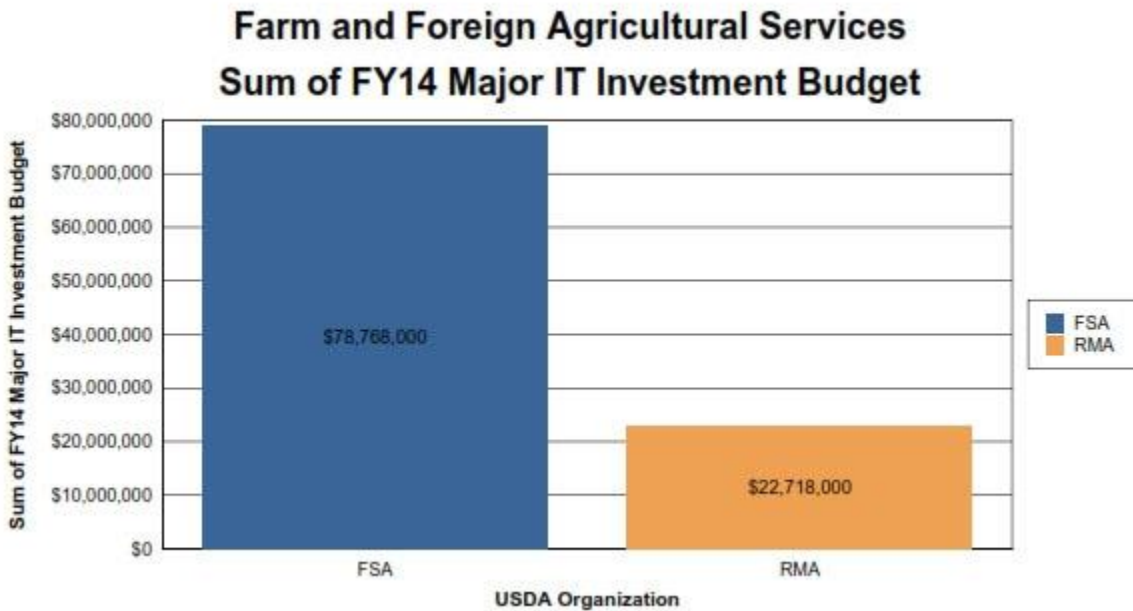


Figure 6: Farm and Foreign Agricultural Services FY14 Major IT Investment Spending

USDA Organization	Major IT Investment Name	PRM Strategic Goal	FY14 Budget
FSA	Consolidated Farm Loan Program Information and Delivery Systems #1	P00.000.411	\$13,298,000
FSA	Farm Program Modernization (MIDAS) #097	P00.000.411	\$65,470,000
FSA FY14 Major IT Investment Sum			\$78,768,000
RMA	RMA-13 Emerging Information Technology Architecture (EITA)	P00.000.411	\$22,718,000
RMA FY14 Major IT Investment Sum			\$22,718,000
Farm and Foreign Agricultural Services Total Major IT Investment Spending: \$101,486,000			

Consolidated Farm Loan Program Information & Delivery Systems #103

Farm loan programs serve as an important safety net for America's farmers by providing a source of credit when they are temporarily unable to obtain credit from commercial sources. In order to meet the growing demand for farm credit, funding for farm loans hit a record of \$6 billion in 2010. FSA anticipates continued strong demand for its farm loan programs in 2015 as a result of relatively high production costs and increased operating capital needs.

The Consolidated Farm Loan Program & Delivery Systems investment (CFLPIDS) directly supports FSA's Farm Loan Program (FLP) and its goal of assisting American farmers and ranchers by providing them with ownership, operating and emergency loans.

Specifically, the FLP acts as a lender of last resort to new and socially disadvantaged farmers and ranchers who are unable to obtain credit through commercial lenders, helping them to establish or stabilize their operations in the face of financial hardship and/or natural disasters.

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To provide a functionality to create loan requests for operating, ownership and emergency loans; obligate and disburse funds to customers; close loans; and provide system support for all loan and farm servicing.	<p>The current CFLPIDS architecture consists of two farm loan programs systems: the Direct Loan System (DLS) and the Program Loan Accounting System (PLAS).</p> <p>The DLS system is a SQL server-based web application that replaced several distributed FLP systems, including most of the online functionality of PLAS - a Cobol application, residing on an IDMS mainframe, which provides backend transaction processing and general ledger functionality.</p> <p>CFLPIDS loan making and servicing functions are originated in the DLS system and files are moved to the PLAS mainframe every evening for final processing.</p> <p>CFLPIDS currently uses the Service Center Information Management System</p>	The scope of the CFLPIDS project is to replace existing program functionality. The accounting portion of this investment will utilize FMFI or other Departmentally sanctioned accounting functions.	<p>The CFLPIDS investment has been specifically designed to achieve the following key benefits:</p> <ol style="list-style-type: none"> 1. Enable an integrated, timely view of the programs risk profile by creating a centralized data repository; 2. Streamline and modernize business processes that eliminate redundant data entry; 3. Provide faster delivery and obligation of loans to eligible farmers and ranchers; 4. Automate routine tasks that currently require substantial manual effort; 5. Redeploy some USDA Service Center staff to higher value added activities;

	<p>(SCIMS) to register Borrowers and keep track of personal information and the COTS Program Funds Control System (PFCS) for Allotment funds control.</p> <p>CFLPIDS is currently in the process of analyzing the best fit and interface points for the Departmental Systems; Financial Management Modernization Initiative (FMMI) and Modernize and Innovate the Delivery of Agricultural Systems (MIDAS).</p>		<p>6. Significantly reduce scheduled and unscheduled system outages and associated productivity losses;</p> <p>7. Return regular work schedules for USDA Service Center staff due to improved system availability;</p> <p>8. Enhance accurate, comprehensive, reliable and available data for reporting, research and inquiry; and</p> <p>9. Reduce loan delinquency through improved system capability to ensure that official lending procedures are followed for each loan application.</p>
--	---	--	--

Modernize and Innovate the Delivery of Agricultural Systems

Modernize and Innovate the Delivery of Agricultural Systems (MIDAS) is the Farm Service Agency's (FSA) investment to improve the delivery of FSA programs through the re-engineering of FSA business processes and the adoption of enhanced and modernized information technology.

MIDAS is a critical part of FSA's IT modernization efforts that supports farm program delivery with streamlined business processes and integrated applications that share information and resources efficiently. MIDAS achieved an initial operating capability in April 2013 that modernized the storage and retrieval structure of current farm records and integrated this information with land use data, land imagery data and producer information. The system will permit FSA employees to access and better validate program eligibility data and financial services data from a single source and improve customer account management.

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To improve business processes and streamline the information technology capabilities necessary to continue delivery of farm program benefits and services.	<p>MIDAS is a new system that in part uses existing FSA systems and data. It does not share data or technology with other systems outside of FSA.</p> <p>The National Finance Center (NFC) has implemented</p>	<p>MIDAS is intended to align with the Office of the Chief Financial Officer's (OCFO) Financial Management Modernization Initiative (FMMI) investment via the following mechanisms:</p> <p>1. Improve compliance</p>	<p>MIDAS will provide capabilities to meet the increasing demand for customer self-service, and will eliminate FSA's reliance on aging technology.</p> <p>The MIDAS project will re-engineer business</p>

	<p>cloud technology for the MIDAS development and production systems. All new Enterprise Resource Planning functionality is targeted to be cloud based.</p> <p>MIDAS is designed to leverage the USDA and FSA infrastructure improvements being implemented under the OCE initiative.</p>	<p>with modern internal control structures;</p> <ol style="list-style-type: none"> 2. Implement improved IT security functions; and 3. Provide self-service functionality to farmers, ranchers, and producers. 	<p>processes to be common and centralize data assets to support all farm programs, eliminate program specific duplication of functionality and non-integrated distributed data that exists between farm program software applications.</p> <p>The MIDAS project's success will be measured by metrics associated with enhanced business process efficiencies, improved services to customers, achievements in compliance (reduction in erroneous payment percentages), and decreases in redundancies within farm program delivery and services.</p>
--	---	--	---

RMA-13 Emerging Information Technology Architecture

The Agricultural Risk Protection Act of 2000 (ARPA) identified new program directions for RMA, and expanded its authority to serve 1 million livestock ranchers. The RMA-13 investment supports RMA's strategic plan and uses e-commerce technology to integrate the organization and its insurance delivery partners into a single electronic community.

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To replace mission-critical legacy financial and business systems currently at or past end-of-life, and unable to meet the demands of the current Risk Management program.	<p>RMA-13 supports the development of RMA systems, which are used by general public, AIPs (Approved Insurance Providers) and internal RMA users. Some of the applications developed for the general public are Price Discovery and Cost Estimator, which are tools used to calculate the crop insurance premium.</p> <p>Approved Insurance providers use RMA systems extensively to get data about crop insurance.</p> <p>Infrastructure support includes on-premises data-driven solutions on physical and virtualized HP servers utilizing .NET and SQL.</p>	<p>Investment 13 is following a transition strategy to achieve the following requirements:</p> <ul style="list-style-type: none"> • Improve services to business partners and citizens; • Respond to legislative changes and mandates; • Respond to increased demand for services amid reduced budgetary resources; • Fulfill information security requirements; • Collaborate with relevant cross-agency initiatives; and • Reduce fraud and abuse. 	<p>The RMA-13 investment addresses several capability gaps with existing legacy systems:</p> <ul style="list-style-type: none"> • Cost of maintenance; • Difficulty of maintenance; • Number of developer tools in use; and • Lack of sufficient ability to implement new risk products within stringent timeframes. <p>This investment will also automate functions now performed manually:</p> <ul style="list-style-type: none"> • Manual underwriting; • Post-SRA changes to accounting reports; and,

			<ul style="list-style-type: none"> Poor/cumbersome end-user reporting tools.
--	--	--	---

Food, Nutrition and Consumer Services

The Food, Nutrition and Consumer Services mission area works to harness the Nation's agricultural abundance to end hunger and improve health in the United States. Its agencies administer federal domestic nutrition assistance programs and the Center for Nutrition Policy and Promotion, which links scientific research to the nutrition needs of consumers through science-based dietary guidance, nutrition policy coordination, and nutrition education.

The Food, Nutrition and Consumer Services Mission Area is made up of the following two (2) agencies:

- Center for Nutrition Policy and Promotion (CNPP)
- Food and Nutrition Service (FNS)

The programs and funding of Food, Nutrition, and Consumer Services support the USDA Strategic Goal to ensure that all of America's children have access to safe, nutritious, and balanced meals.

The Center for Nutrition Policy and Promotion (CNPP): The mission of CNPP is to improve the health of Americans by developing and promoting dietary guidance that links the best evidence-based, scientific research to the nutrition needs of Americans. The Center for Nutrition Policy and Promotion (CNPP) establishes Federal nutrition policy through the Dietary Guidelines for Americans, sets priorities for nutrition research, sets nutrition standards, and disseminates dietary guidance. It maintains the MyPlate food guidance system.

Food and Nutrition Service (FNS): The Food and Nutrition Service (FNS) administers the USDA nutrition assistance programs that provide children and low-income people access to food, a healthful diet, and nutrition education. Programs include the Supplemental Nutrition Assistance Program (SNAP, formerly called the Food Stamp Program), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), School Lunch and Breakfast, among others. In addition, FNS oversees the *FNCS IT Infrastructure*, the only one of USDA's 24 major investments within the FNCS mission area. Figure 7 provides a detailed breakdown of the FNCS mission area's major IT investment spending.

FNS contributes significantly to two objectives under this strategic goal: (1) improving access to nutritious food; and (2) promoting healthy diet and physical activity behaviors.

FNS administers USDA's domestic nutrition assistance programs. Working in partnership with State agencies and other cooperating organizations, FNS helps to ensure children and other low-income Americans have access to sufficient food, a healthful diet, and nutrition education. FNS is committed to increasing the performance, efficiency, and integrity of USDA programs. Figure 7 provides a summary of the FNCS mission area's major IT investment spending.

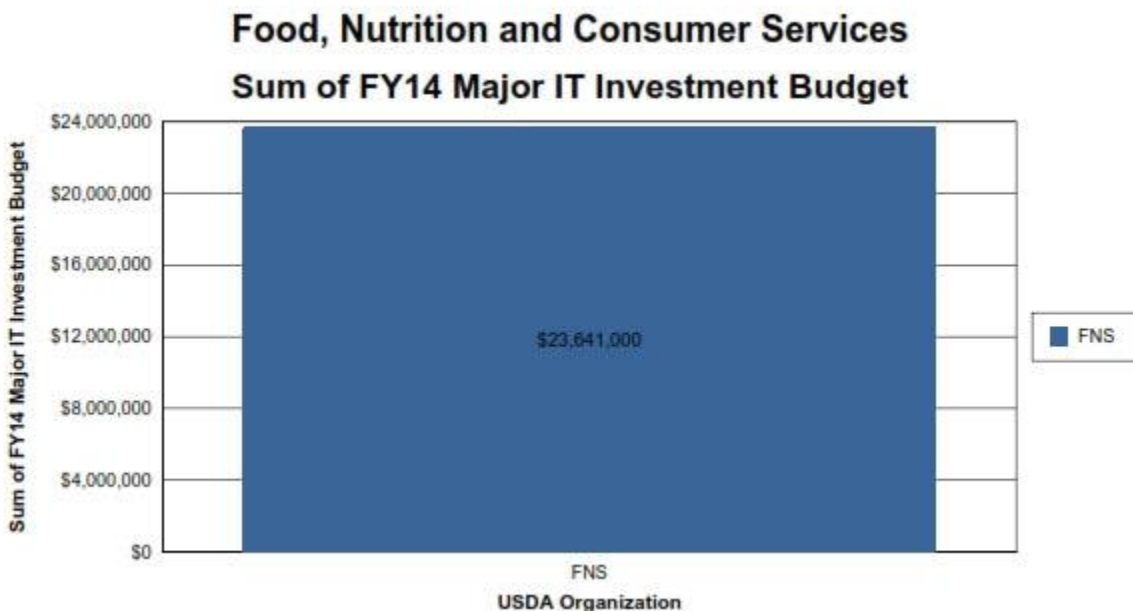


Figure 7: FNCS FY14 Major IT Investment Summary

<u>USDA Organization</u>	<u>Major IT Investment Name</u>	<u>PRM Strategic Goal</u>	<u>FY14 Budget</u>
FNS	FNCS IT Infrastructure	P00.000.414	\$23,641,000
FNS FY14 Major IT Investment Sum			\$23,641,000
Food, Nutrition and Consumer Services FY14 Major IT Investment Budget Summary:			
\$23,641,000			

FNCS IT Infrastructure

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To ensure employees have access to up-to-date IT infrastructure, tools, and applications that enable them to more effectively and productively accomplish their work in support of the FNCS mission.	<p>The FNCS IT Infrastructure investment enables FNS to maintain daily O&M of the FNS public websites, intranet, extranet, Drupal and web-based applications.</p> <p>The FNCS IT Infrastructure is in steady state, and utilizes the USDA-wide Email Consolidation initiative.</p> <p>The FNCS IT Infrastructure is integrated with eAuth and utilizes the USDA NITC Enterprise Data Center (EDC) for the hosting of Intranet and Internet Websites for FNS.</p>	<p>The FNCS IT Infrastructure investment includes the following requirements:</p> <ul style="list-style-type: none"> • Provide FNS with HW, systems SW and Web infrastructure; • Provide IT security and related physical security infrastructures; • Provide support contracts, IT salaries and benefits; • Follow internal e-Gov activities and other IT procedures not specific to an individual initiative. 	The FNCS IT Infrastructure (e.g. tools and applications) is crucial to FNS's IT operations, and their continued support is essential to maintaining FNS's operational continuity and stability.

Food Safety

The Food Safety mission area is the public health mission area of USDA; responsible for ensuring that the Nation's commercial supply of meat, poultry and processed egg products are safe, wholesome, and properly labeled and packaged. This includes products produced domestically in federally inspected establishments, as well as products imported from foreign countries. The Food Safety mission area support the USDA Strategic Goal to ensure that all of America's children have access to safe, nutritious, and balanced meals.

The Food Safety mission area consists of one agency, the Food Safety and Inspection Service (FSIS). FSIS provides federal inspection of meat, poultry and processed egg products facilities/plants; support for State inspection programs; support development and implementation of the Public Health Information System to enhance science-based, data-driven inspections; support determination of international equivalence of foreign systems; and inspection of imported meat, poultry and egg products.

Food Safety ensures that the Nation's commercial supplies of meat, poultry, and egg products are safe, wholesome, and properly labeled, and packaged. This mission area also plays a key role in the President's Council on Food Safety and has been instrumental in coordinating a national food safety strategic plan among various partner

agencies including the Department of Health and Human Services and the Environmental Protection Agency.

Foodborne illness is recognized as a significant public health problem in the United States. About 48 million people (one in six Americans) get sick, 128,000 are hospitalized, and 3,000 die each year from foodborne diseases, according to the latest (2011) estimates from the Centers for Disease Control and Prevention. USDA and other Federal agencies are working in cooperation to ensure that the food Americans eat is safe and healthy.

Food Safety Inspection Service (FSIS): FSIS coordinates the development of its policies with other USDA agencies and other Federal agencies, including the Food and Drug Administration, the Environmental Protection Agency, the Centers for Disease Control and Prevention, as well as foreign governments and international organizations, to ensure an integrated farm-to-table approach to food safety.

To accomplish its functions, FSIS employees are located at over 6,400 slaughtering and processing establishments and import houses, and other Federally- regulated facilities. Headquarters personnel are responsible for overseeing administration of the program and ensuring that scientific and technological developments are incorporated into inspection procedures.

The Food Safety and Inspection Service (FSIS) is responsible for overseeing and carrying out USDA's Food Safety mission, which includes the management of two (2) of USDA's 24 major IT investments including one high priority modernization initiatives – the Public Health Information System (PHIS). Figure 8 below provides a summary of major IT investment spending for the Food Safety mission area.

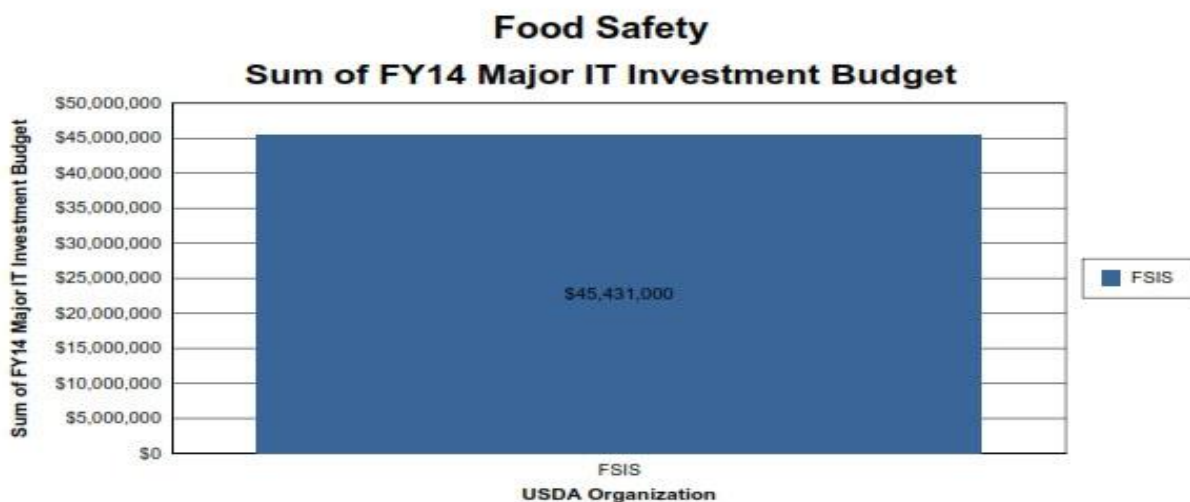


Figure 8: FSIS FY14 Major IT Investment Summary

<u>USDA Organization</u>	<u>Major IT Investment Name</u>	<u>PRM Strategic Goal</u>	<u>FY14 Budget</u>
FSIS	Public Health Data Communications Infrastructure System (PHDCIS)	P00.000.414	\$39,844,000
FSIS	FSIS Public Health Information System (PHIS)	P00.000.414	\$5,587,000
FSIS FY14 Major IT Investment Sum			\$45,431,000
Food Safety Mission Area Total Major IT Investment Spending: \$45,431,000			

FSIS Public Health Information System (PHIS)

The FSIS's public health-based approach, supported by PHIS, is in line with the core food safety principles of the President's Food Safety Working Group and guides the development of a modern, coordinated food safety system that prevents harm to consumers.

PHIS enables FSIS to utilize data to perform effective analyses in support of food safety inspections and enforcements, and assists the Agency to identify and quickly stop outbreaks of foodborne illness. To this end, PHIS has empowered FSIS with tools to stay ahead of food safety threats by more rapidly and accurately identifying emerging trends, patterns and anomalies in data.

PHIS is an application modernization project that employs Service Oriented Architecture (SOA) principles. It consolidates food inspection data and leverages business intelligence tools for efficient decision-making, and it integrates business functionalities from legacy applications.

- Technology Modernization, PHIS SOA Modernization & Application Consolidation:** The development of PHIS has afforded FSIS the opportunity to consolidate/integrate many application development functions into a single clearinghouse for software reuse and cross agency collaboration efforts. Through the use of a Service Oriented Architecture (SOA), FSIS has enabled methodologies where applications reuse existing code to perform common functions instead of re-engineering code to perform the same function. An example of this is FSIS's Authentication/Authorization services, which allow developers to reuse code for login purposes. This reduces maintenance and code development time.

- **Application Consolidation:** PHIS integrates into a single system Performance Based Inspection System (PBIS) for domestic inspection and the Automated Inspection Information System (AIIS) for import re-inspection, as well as export certification and predictive analytics (PA) components. The resulting functionality of this integration allows for easier cross-functional needs, such as reporting and developing common software components to perform shared functions.
- **Technology Modernization & Business Intelligence:** PHIS has employed a PA component for trend analysis, and data aggregation needs, which will allow for more timely and accurate decision making capabilities.

The PHIS Investment aligns with the following goals:

- USDA Goal 4.3: Protect Public Health by ensuring Food is safe.
- FSIS Goal 1, Ensure that food safety inspection aligns with existing and emerging risks.
- FSIS Goal 2: Risk-based measures strengthen regulatory verification and enforcement activities on behalf of the consumer.
- FSIS Goal 8: Based on the Defined Agency Business Needs, Develop, Maintain, and Use Innovative Methodologies, Processes, and Tools, including PHIS, to Protect Public Health Efficiently and Effectively and to Support Defined Public Health Goals for FY 2013.

The following table provides detailed information regarding the benefits of the PHIS investment.

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To collect, mine, and analyze inspection, surveillance, and investigative data, in compliance with the Safe Port Act of 2006.	<p>PHIS leverages USDA's consolidated data center infrastructure and leverages FSIS's shared business application infrastructure located in the USDA Enterprise Data Center to reduce duplication and improve efficiencies.</p> <p>PHIS employs USDA's information centric, shared platform, customer centric, and security privacy Digital Strategy principles to provide services to citizens and government organizations that consume food inspection services.</p>	<p>The PHIS investment includes the following requirements:</p> <ul style="list-style-type: none"> • Automate procedures throughout agency programs; • Improve information sharing with Congress, Industry, Consumers, International Governments, State Governments, other Government Agencies with international trading partners; and • Eliminate duplicate efforts for various 	<p>PHIS is a powerful decision-making tool that enables FSIS to protect public health more efficiently, effectively and rapidly than it was able to using previous data systems. PHIS have significantly improved the way FSIS detects and responds to foodborne hazards.</p> <p>PHIS offers the following benefits:</p> <ul style="list-style-type: none"> • Provides an analytical tool and data to improve the agency's ability to detect the introduction of

	<p>PHIS leverages technology to automate procedures throughout agency programs</p> <p>Share information with other government agencies (DHS, FDA, CDC), within USDA (APHIS, AMS), and with international trading partners (Mexico, Japan, New Zealand).</p> <p>PHIS employ a shared first approach by consuming services from other applications (e.g. USDA authorization services, USDA e-authentication services, and e-certification from international partners).</p> <p>The applications/systems included in the investment help close agency performance gaps by providing more effective and cost efficient services to better detect and prevent food safety threats.</p>	system functions, data, and integration points.	<p>intentional/unintentional food borne threats.</p> <ul style="list-style-type: none"> Enables near real-time data collection for reporting and analysis. Streamlines information collection to assist FSIS with trace back and trace forward investigations for identifying product disposition and/or the origins of hazards. Provides the ability to collaborate with DHS, FDA, international trading partners and with other USDA agencies to improve mission critical performance in inspections, surveillance, tracking, auditing, enforcement and more.
--	---	---	--

Public Health Data Communications Infrastructure System (PHDCIS)

The PHDCIS provides the network and communications infrastructure required for all FSIS investments and serves as the technology foundation for all applications and services leveraged to support the FSIS mission. PHDCIS facilitates IT efficiency and economy through the consolidation of IT infrastructure and the implementation of virtualization technologies that maximize technological utility. PHDCIS IT components are selected based on a factor of operational economy and efficiency, and all PHDCIS components are located at the EDCs or leverage cloud services managed by USDA.

The PHDCIS utilizes USDA's cloud services (IaaS/ SaaS/ PaaS), and leverages infrastructure hosting services, server deployment, and storage services from the USDA Data Center.

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To provide mission-critical IT infrastructure to ensure that the Nation's commercial supply of meat,	PHDCIS consolidates the FSIS IT infrastructure, and provides a robust IT Infrastructure system that	The PHDCIS investment includes the following requirements:	The PHDCIS investment aligns with the principles outlined in the OMB Circular No. A-130 and the Federal

poultry, and egg products is safe, wholesome, and correctly labeled and packaged.	<p>leverages technology to automate procedures throughout agency programs.</p> <p>PHDCIS consists of the IT hardware, operations management, back-office systems and services required to support the FSIS business applications and user community.</p> <p>FSIS leverages telecommunication (network, video, and telephony) services from USDA/Network.</p> <p>FSIS leverages USDA Enterprise Data Centers and email collaboration services from Microsoft.</p>	<ul style="list-style-type: none"> • Modernize existing products; • Refresh aging equipment/end-of-life products; • Provide O&M Labor Services; • Fund existing, telecommunication costs, and hardware and software license renewals; • Implement mobile and wireless technologies; and • Comply with mandates • Implement Shared Services, IPv6, and Digital Strategy. 	<p>IT Shared Services Strategy by extracting efficiency and economy from the IT products and services used to execute the FSIS mission.</p> <p>PHDCIS supports nearly 12,000 Federal and State inspectors and investigators in over 6,000 locations nationwide 24/7/365 as well as three national laboratories.</p> <p>PHDCIS provides many benefits, such as those in the following list:</p> <ul style="list-style-type: none"> • Provides a robust IT infrastructure system that is able to support all field activities and all other FSIS business IT systems. • Leverages USDA Enterprise Data Center to reduce duplication and efficiencies of multiple Federal data centers. • Uses strategic sourcing when appropriate for cost efficiency.
---	--	--	---

Marketing and Regulatory Programs

The Marketing and Regulatory Programs (MRP) mission area facilitates domestic and international marketing of U.S. agricultural products, ensures the health and care of animals and plants, and supports billions of dollars in agricultural trading each year by providing timely, accurate, and unbiased information on cotton, dairy, fruits, vegetables, specialty crops, livestock, grain, and poultry. Marketing and Regulatory Programs (MRP) facilitates and help protect the agricultural sector from plant and animal health threats; and to ensure humane care and treatment of certain animals. Because these programs provide the basic infrastructure to improve agricultural market competitiveness for the overall benefit of consumers and producers of American agriculture, this mission area contributes to all of USDA's Strategic Goals.

Marketing and Regulatory Programs area is administered by the following agencies, which are active participants in setting national and international standards:

- Agricultural Marketing Service (AMS)
- Animal and Plant Health Inspection Service (APHIS)

-
- Grain Inspection, Packers, and Stockyards Administration (GIPSA)

Agricultural Marketing Service (AMS): The mission of AMS is to facilitate the strategic marketing of agricultural products in domestic and international markets, while ensuring fair trading practices and promoting a competitive and efficient marketplace to the benefit of producers, traders, and consumers of U.S. food and fiber products.

AMS administers a variety of programs that enhance the marketing and distribution of agricultural products. Activities include the collection, analysis, and dissemination of market information; surveillance of shell egg handling operations; development of commodity grade standards; protection of producers from unfair marketing practices; statistical sampling and analysis of commodities for pesticide residues; development and enforcement of organic standards; and research and technical assistance aimed at improving efficiency of food marketing and distribution. AMS efforts aid the development of food value chains such as food hubs and other marketing outlets for locally- and regionally-produced food where data, infrastructure and technology gaps limit producers' marketing opportunities and consumers' access, and its programs promote a strategic marketing perspective that adapts product and marketing practices and technologies to the issues of today and the challenges of tomorrow. These efforts will support the USDA strategic goal to assist rural economies to create prosperity by better connecting consumers with local producers.

AMS oversees the high-priority *Web Based Supply Chain Management (WBSCM)*, which is also one of USDA's 24 major IT investments.

Animal and Plant Health Inspection Service (APHIS): The Animal and Plant Health Inspection Service (APHIS) makes a significant contribution to the value of the Nation's food supply by protecting U.S. agricultural resources from pests and diseases, managing wildlife damage, regulating genetically engineered organisms, and administering the Animal Welfare Act. APHIS programs integrate plant and animal disease surveillance, epidemiology, emergency response, and information delivery to ensure the marketability of U.S. agricultural products. APHIS works cooperatively with State and local agencies, private groups, and foreign governments to protect the safety of the Nation's agriculture, and its efforts also focus on resolving and managing trade issues related to animal or plant health. APHIS supports the Department's strategic goal to ensure all children have access to safe, nutritious, and balanced meals by minimizing major diseases and pests that would otherwise hinder agricultural production.

APHIS manages two (2) of USDA's 24 major investments: Animal Disease Traceability Information System (ADTIS) and APHIS Enterprise Infrastructure (AEI).

Grain Inspection, Packers and Stockyards Administration (GIPSA): The Grain Inspection, Packers and Stockyards Administration (GIPSA) facilitates the marketing of livestock, poultry, meat, cereals, oilseeds, and related agricultural products. The agency promotes fair and competitive trading practices for the overall benefit of consumers and American agriculture.

Overall, the Marketing and Regulatory Programs mission area is responsible for three (3) of USDA's 24 major investments: Web-Based Supply Chain Management (WBSCM); Animal Disease Traceability Information System (ADTIS); and APHIS Enterprise Infrastructure (AEI). Figure 9 provides a summary of the Marketing and Regulatory Programs major IT investments.

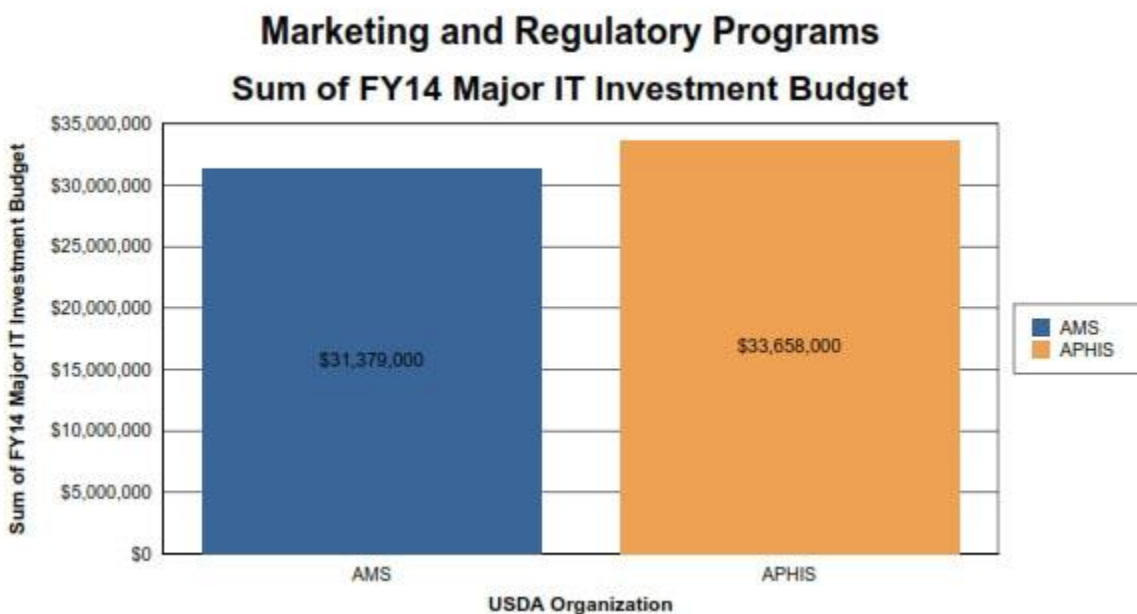


Figure 9: Marketing and Regulatory Programs Major IT Investment Spending

USDA Organization	Major IT Investment Name	PRM Strategic Goal	FY14 Budget
AMS	Web-Based Supply Chain Management (WBSCM)	P00.000.414	\$31,379,000
AMS FY14 Major IT Investment Sum			\$31,379,000
APHIS	APHIS Enterprise Infrastructure (AEI)	P00.000.411	\$33,200,000
APHIS	Animal Disease Traceability Information System (ADTIS)	P00.000.414	\$458,000

APHIS FY14 Major IT Investment Sum			\$33,658,000
Marketing and Regulatory Programs Total Major IT Investment Spending: \$65,037,000			

Web-Based Supply Chain Management (WBSCM)

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To provide an integrated Internet-based commodity acquisition, distribution, and tracking system for use by USDA agencies and the United States Agency for International Development (USAID) for the commodity distribution program that provides over 4.5 million tons of food (involving over 200 commodities across eight programs) to targeted populations in the U.S. and abroad.	The Web Based Supply Chain Management (WBSCM) system is an integrated Internet-based commodity acquisition, distribution, and tracking system, built on System Application and Products (SAP) commercial software.	The overarching requirement for the WBSCM investment is to implement an ERP solution that eliminates a point solution for the USDA.	<p>WBSCM is a mission critical system that supports commodity operations for the Agricultural Marketing Service (AMS), the Food and Nutrition Service (FNS), the Farm Service Agency (FSA), the Foreign Agricultural Service (FAS), and the U.S. Agency for International Development (USAID).</p> <p>The commodity programs serve a dual mission and purpose:</p> <ol style="list-style-type: none"> 1. Strengthening American agriculture through surplus removal, price support, and other means; and 2. Strengthening food security by distributing commodities to schools and other recipient agencies that serve the needy throughout the world under an array of domestic and foreign feeding programs operated by USDA and USAID.

Animal Disease Traceability Information System (ADTIS)

The Animal Disease Traceability Information System (ADTIS) is crucial to successfully tracing animal illnesses and public health. Tracing the location of at-risk animals is key

to preserving animal health, reducing animal illnesses and limiting economic losses to farmers.

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
<p>To support a traceback in the event of an animal health incident.</p>	<p>The system is designed to operate in the NITC cloud architecture. It employs WEB service calls and accomplishes its tasks via messaging. This approach minimizes the impact on the USDA infrastructure by relying on the "data-in-place*" to the maximum extent possible.</p> <p>*(Data-in-place Refers to the concept that a query can be completed without transferring the whole data set across the network - a SQL query result is transmitted instead.)</p> <p>ADTIS effectively provides integration points with all 50 States, 8 Tribes, 2 Territories, and the APHIS Cost Management System (ACMS). In addition, 12 private companies rely on the ADTIS to allocate ISO Standard unique ID numbers that are applied on animal ID devices. This allows APHIS to trace diseased animals and keep them out of the food supply.</p> <p>The ADTIS system is housed in the NITC SaaS environment, and integrates with other investments via messaging over WEB services.</p> <p>The investment takes advantage of the NITC PAAS cloud and the Apache web services server.</p> <p>While this system is not dependent on other systems, it does support SCS, NAHLN, AHSM, VSPS and EMRS. Since this system is developed and in steady state mode, it poses no risk to those</p>	<ul style="list-style-type: none"> • Enforce applicable data standards as they relate to FISMA-compliant security policies and the Risk Management Framework (RMF); • Maintain a security posture commensurate with the confidentiality, integrity, and availability of the data stored; • Integrate advancing technologies to maintain efficiency and accuracy of data collection, especially pertaining to researching emerging applications for reliable and efficient animal identification; • Improve government performance in accordance with the President's Management Agenda; • Meet the requirements of the Government Paperwork Elimination Act; and, • Meet accessibility requirements. 	<p>The Animal Disease Traceability Information System (ADTIS) supports animal disease traceability activities related to animal identification, movements and locations where animals are managed. It is being implemented by the USDA and state agencies – in cooperation with industry – to enable timely trace back of the movement of diseased or exposed animal.</p> <p>Animal disease traceability helps to ensure rapid disease containment and maximum protection of America's animals.</p> <p>The system is designed to operate in the NITC cloud architecture. It employs WEB service calls and accomplishes its tasks via messaging. This approach minimizes the impact on the USDA infrastructure by relying on the "data-in-place*" to the maximum extent possible.</p> <p>*(Data-in-place Refers to the concept that a query can be completed without transferring the whole data set across the network - a SQL query result is transmitted instead.)</p>

	investments.		
--	--------------	--	--

APHIS Enterprise Infrastructure

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To enhance and modernize the IT infrastructure.	<p>AEI is an existing, steady state investment that is the GSS for APHIS.</p> <p>AEI is the primary computing infrastructure for APHIS.</p> <p>AEI provides the core computing capabilities that are used for monitoring plant and livestock health to help and support rural communities.</p> <p>APHIS has consolidated its mobile telecommunications contracts.</p> <p>APHIS has migrated its email to the USDA Outlook email, and is in the process of moving its systems to an EDC.</p> <p>AEI's Domino platform moved to NITC cloud service. APHIS plans to Sunset the Domino platform 01-2014. Oracle is currently under review for move to the NITC Cloud service.</p> <p>APHIS implemented Web Sphere's Portal to adhere to the President's Digital Strategy.</p>	The primary requirements for the AEI investment is to acquire software, hardware, desktop components, and other related services needed to enhance and modernize the infrastructure.	<p>AEI strives to increase availability from 99.97% to 99.999%. The increased availability will be achieved by consolidation of servers, utilizing EDC technologies, and increasing redundancy in Enterprise systems.</p> <p>AEI has a 12 year ROI compared to commercial provided solutions.</p> <p>AEI utilizes existing Microsoft offerings that allow us to retire legacy solutions. APHIS is using Windows Server 2008, Windows 2010, and MSOffice 2010. APHIS has retired Windows Server 2000 and 2003, XP OS, and Windows 2007.</p>

Natural Resources and Environment

USDA's Natural Resources and Environment mission area ensures the health of the land through sustainable management. To this end, NRE promotes the conservation and sustainable use of natural resources on the Nation's private lands and sustains production of all the goods and services that the public demands of the national forests and grasslands. The mission area includes two agencies that work to prevent damage

to natural resources and the environment, restore the resource base, and promote good land management:

- Natural Resources Conservation Service (NRCS)
- Forest Service (FS)

NRCS and FS are the primary contributors to achieving the Strategic Goal that ensures our national forests and private working lands are conserved, restored, and made more resilient to climate change, while enhancing water resources.

Forest Service: The Forest Service (FS) manages 193 million acres of public lands in 155 national forests and 20 grasslands and is the largest forestry research operation in the world. The Forest Service provides technical and financial assistance to help rural and urban citizens, including private landowners, care for forest, watersheds, and rangelands in their communities. The Forest Service oversees three (3) of USDA's 24 major IT investments, including the Resource Ordering and Status System (ROSS), which is one of USDA's high-priority modernization initiatives (HPMI).

Natural Resources Conservation Service (NRCS): The Natural Resources Conservation Service (NRCS) helps people maintain the land through scientifically based, locally led voluntary conservation efforts, and improves natural resources on private lands. NRCS work results in productive lands and a healthy environment through reduced soil erosion; water and air quality; energy conservation; restored woodlands and wetlands; enhanced fish and wildlife habitat; and reduced upstream flooding. NRCS manages the Conservation Delivery Streamlining Initiative (CDSI), a major investment and one of USDA's high-priority modernization initiatives.

The Natural Resources and Environment mission area manages four (4) of USDA's 24 major IT investments, including two of its high-priority modernization initiatives: Conservation Delivery Streamlining Initiative (CDSI) and the Resource Ordering Status System (ROSS). Figure 10 provides a summary of major IT investments by the NRE mission area.

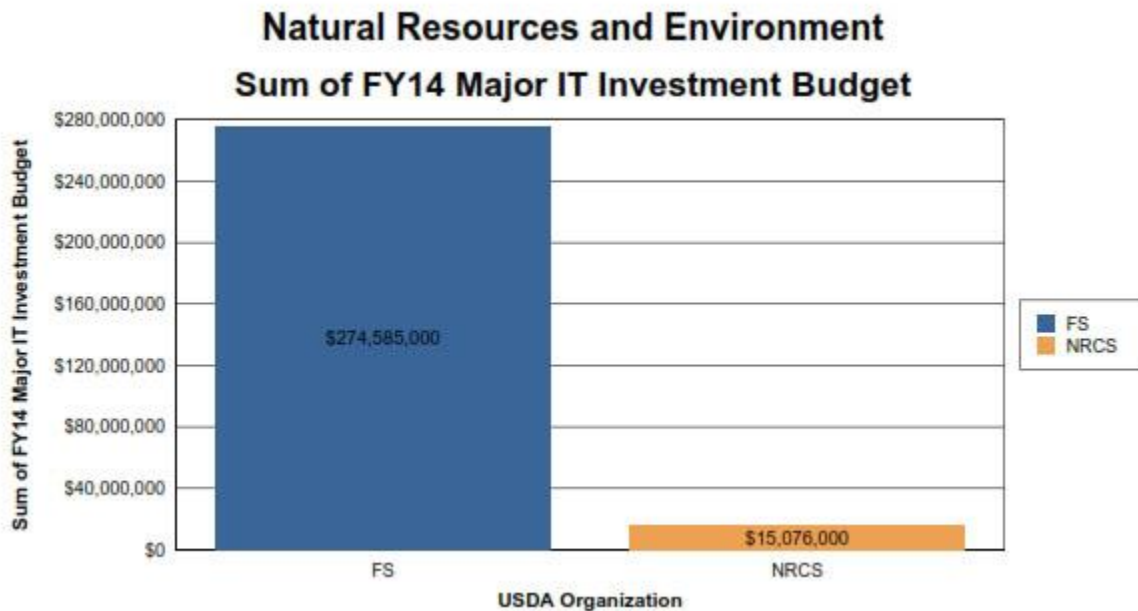


Figure 10: NRCS Major IT Investment Spending

<u>USDA Organization</u>	<u>Major IT Investment Name</u>	<u>PRM Strategic Goal</u>	<u>FY14 Budget</u>
FS	Resource Ordering and Status System (ROSS)	P00.000.412	\$6,837,000
FS	USDA Public Safety Land Mobile Radio System (AgPRS)	P00.000.412	\$40,569,000
FS	Forest Service Computer Base (FSCB)	P00.000.412	\$227,179,000
FS FY14 Major IT Investment Sum			\$274,585,000
NRCS	Conservation Delivery Streamline Initiative (CDSI)	P00.000.412	\$15,076,000
NRCS FY14 Major IT Investment Sum			\$15,076,000
Natural Resources and Environment Total Major IT Investment Spending: \$289,661,000			

USDA Land Public Safety Radio System (AgPRS)

The mission of the USDA Forest Service LMR Program is to manage the design, installation and sustainment of the wireless communications needs of the Forest Service including Fire Prevention and Response, Aviation, Research, Law Enforcement

and Business Operations for both voice and data applications. The Forest Service sustains our Nation's forests and grasslands by delivering seamless LMR and other communications technologies through our (C)ustomer Focus; (I)nnovative Solutions; (O)penness & Collaboration.

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
<p>To support field-oriented administrative, project, incident, safety, and emergency work.</p> <p>Deploy and maintain radio capability across the agency.</p>	<p>The Forest Service land mobile radio system provides essential and instantaneous communication over vast areas of national forest land.</p> <p>In many locations, the FS radio system is the only means of communication.</p>	<p>The AgPRS investment includes the following requirements:</p> <ul style="list-style-type: none"> • Maintain over 3000 communication sites nationally. • Deliver critical field going communications for 135 National Forest and Grasslands. • Provide dispatch capability for administrative and Fire operations for 135 National Forests. • Adhere to the industry standard APCO P25 (Association of Communications Public Safety Officials, Project 25). 	<p>There is a great dependence on AgPRS for day-to-day business as well as safety and emergency operations. Internal studies have indicated that dependence on the LMR system is high- over 80% of the 15,000 user base surveyed respondents rely on the system for day-to-day business.</p> <p>This investment funds sustainment and modernization efforts to deploy and maintain radio capability across the agency.</p>

Forest Service Computer Base (FSCB)

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
<p>To provide voice, video and data network infrastructure to meet the business needs of the agency.</p>	<p>The FSCB investment enables the Forest Service to provide voice, video and data network infrastructure for its employees.</p>	<p>The FSCB investment includes the following requirements:</p> <ul style="list-style-type: none"> • Provide and maintain the Forest Service's IT infrastructure; • Purchase, replacement, and maintenance of personal computers and peripheral equipment; • Purchase, replacement, and maintenance of servers, storage and peripherals for file 	<p>This investment is vital to ensure that the Forest Service can continue to carry out its natural resource mission in an e-Gov environment.</p>

		<p>storage, databases, applications, etc.;</p> <ul style="list-style-type: none"> • Purchase, replacement, and maintenance of software for office automation, e-mail, collaboration, databases, etc.; • Integration services to ensure the interoperability of the various parts of the infrastructure; and • End-user support center for helpdesk services for all components of the infrastructure. <p>This investment is currently in the Steady State phase of the USDA CPIC process. There are pockets of modernization efforts going on but no full scale DME initiatives.</p>	
--	--	---	--

Resource Ordering and Status System (ROSS)

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To provide a fully automated capability that improves resource mobilization in response to disasters.	ROSS is an integral part of the nation's emergency response framework, and is relied upon for incident support within FS, DOI, State (e.g., CALFIRE) and local agencies.	The ROSS investment is required to link approximately 400 interagency wildland incident dispatch offices to share resource and incident status information, provide a means to order resources, and provide for order confirmation.	ROSS automatic interfaces with both VIPR and e-ISuite will continue to improve IT integration in support of wildland fire and other federal emergency management activities.

Conservation Delivery Streamlining Initiative (CDSI)

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
Streamlined business processes and simplified conservation delivery.	<p>High Level Functionality</p> <p>Conservation Desktop: Provides conservation planning and financial</p>	<p>The CDSI investment includes the following requirements:</p> <ul style="list-style-type: none"> • Implement an 	As the Conservation Delivery Streamlining Initiative (CDSI) comes online over several fiscal years, initially five legacy

	<p>assistance; Conservation Services Toolkit; Automating the additional six pillars of conservation planning</p> <p>Client Gateway: Online self-service access to customer and conservation data; Online access to NRCS Program Information; Online access to their own customer records</p> <p>Mobile Planner: Implements a new business model using mobile application(s); Result in technical staff spending 65 to 80 percent of time in field -- Conducting conservation planning; Application and financial assistance activities</p>	<p>effective, efficient, and sustainable business model for delivering conservation assistance across the Nation.</p> <ul style="list-style-type: none"> • Simplify conservation delivery for customers and employees. • Streamline business processes to increase efficiency and integration across business lines. • Ensure science-based assistance to reinforce the delivery of technically sound products and services. • Provide an effective and efficient business model and tools to simplify and streamline conservation delivery. 	<p>systems will be replaced or retired. As functions currently implemented via legacy applications are deployed under the CDSI Conservation Desktop, those legacy applications will be deprecated and decommissioned.</p> <p>New business processes that replace existing ones may also result in retirement of legacy applications.</p>
--	---	--	--

Research, Education and Economics

Research, Education and Economics is dedicated to the creation of a safe, sustainable, competitive U.S. food and fiber system, as well as strong communities, families, and youth through integrated research, analysis, and education. The REE mission area works with other USDA agencies, other Federal agencies, international organizations, and the private sector to protect, secure, and improve our food, agricultural and natural resources systems.

REE provides Federal leadership for the discovery, application, and dissemination of information and technologies spanning the biological, physical, and social sciences through agricultural research, education, and extension activities and economic research and statistics, and its responsibilities are carried out by four agencies:

- Research, Education, and Economics (REE)
- Agricultural Research Service (ARS)
- Economic Research Service (ERS)
- National Agricultural Statistics Service (NASS)

REE, through its intramural and competitive grant programs and by strengthening the capacity of institutions of higher education, supports all of USDA's Strategic Goals;

however, the REE mission area does not oversee any major IT investments, and is not reporting an enterprise architecture at this time.

Agricultural Research Service (ARS): The Agricultural Research Service (ARS) is USDA's chief scientific, in-house research agency. ARS conducts intramural research in, and is the largest intramural research agency of USDA. The agency conducts research in the area of natural and biological science to develop new scientific knowledge, transfer technology to the private sector to solve technical agricultural problems of broad scope and high national priority, and provide access to scientific information. This research covers a wide range of critical problems affecting American agriculture, with about 1,200 research projects organized under 4 major program areas: Nutrition; Food Safety and Food Quality; Animal Production and Protection; Natural Resources and Sustainable Agricultural Systems; and Crop Production and Protection.

National Institute of Food and Agriculture (NIFA): The National Institute of Food and Agriculture (NIFA) is USDA's primary extramural research funding agency. Its mission is to advance knowledge for agriculture, the environment, and human health and wellbeing by funding targeted research, education, and extension projects and programs, some of which are specific to the Land-Grant University System, others open to participation by other partner organizations. NIFA partners with land grant and non-land grant colleges and universities in carrying out extramural research, higher education, and extension activities.

Economic Research Service (ERS): The Economic Research Service (ERS) is USDA's primary source of economic information and economic and social science research. ERS' mission is to anticipate economic and policy issues related to food, agriculture, the environment, and rural development, and conduct research that informs public program and policy decisions.

National Agricultural Statistics Service (NASS): The National Agricultural Statistics Service (NASS) conducts the Census of Agriculture and provides the official, current statistics on agricultural production and indicators of the economic and environmental welfare of the farm sector. NASS reports cover virtually every aspect of U.S. agriculture, including production and supplies of food and fiber, prices paid and received by farmers, farm labor and wages, farm finances, chemical use, and changes in the demographics of U.S. producers.

NASS is responsible for overseeing the NASS Survey Processing System, which used to be part of USDA's inventory of major investments but was recently downgraded. As a result, the REE mission area does not have any major IT investments on which to report.

Rural Development

Rural communities and businesses are implementing innovative technologies and modernizing infrastructure to create jobs, develop new markets, and increase competitiveness, while conserving the Nation's natural resources and providing a safe, sufficient and nutritious food supply for the country and the world. As a leading advocate for rural America, USDA is at the forefront of developing the technology and tools necessary to transform rural America to take advantage of new opportunities. All of the funding for USDA's Rural Development (RD) programs contributes to the Strategic Goal of assisting rural communities to create prosperity by providing financial and technical assistance to rural residents, businesses, and private and public entities for a broad range of purposes that bring prosperity and better living to Rural America.

Rural Development is committed to helping improve the economy and quality of life in all of rural America by providing financial programs to support essential public facilities and services as water and sewer systems, housing, health clinics, emergency service facilities and electric and telephone service. Rural Development promotes economic development by providing loans to businesses through banks and community-managed lending pools, while also assisting communities to participate in community empowerment programs.

Since 2009, USDA has helped more than 804,000 rural families buy, refinance, or repair a home, and provided nearly 19,000 grants and loans to help approximately 75,000 small rural businesses create and save over 377,000 jobs. As a leading advocate for rural America, USDA is at the forefront of developing the technology and tools necessary to transform rural America to take advantage of new opportunities; however, declining staff levels, increased program levels, and the age of Rural Development's workforce pose a challenge to RD's future development and support efforts.

Investments in RD staff and technology are a high priority in FY 2015. Funding is provided to hire 250 additional staff to fill critical delivery and management positions to perform portfolio management activities and enhance program operations. A portion of these new hires will assist Rural Development with the implementation of a pilot called Rural Corps that will place economic development professionals in 10 high-need areas to provide technical assistance and hands-on support at the local level. This model will increase the likelihood that investments in infrastructure and economic development are strategic, creating jobs and long-term economic benefits within the region. Additionally, this pilot will enable RD to move towards a more modern, mobile work force and better enable RD to leverage its resources with other Federal agencies.

The Rural Development mission area and its associated investments are overseen and managed by USDA's Rural Development (RD) agency. RD currently manages the Comprehensive Loan Program (CLP), which USDA's only major IT investment is

belonging to the Rural Development mission area. The BY15 Budget includes \$15 million for information technology investments for the Comprehensive Loan Program (CLP).

Please refer to Figure 11 for a summary of major IT investment spending by the Rural Development mission area.

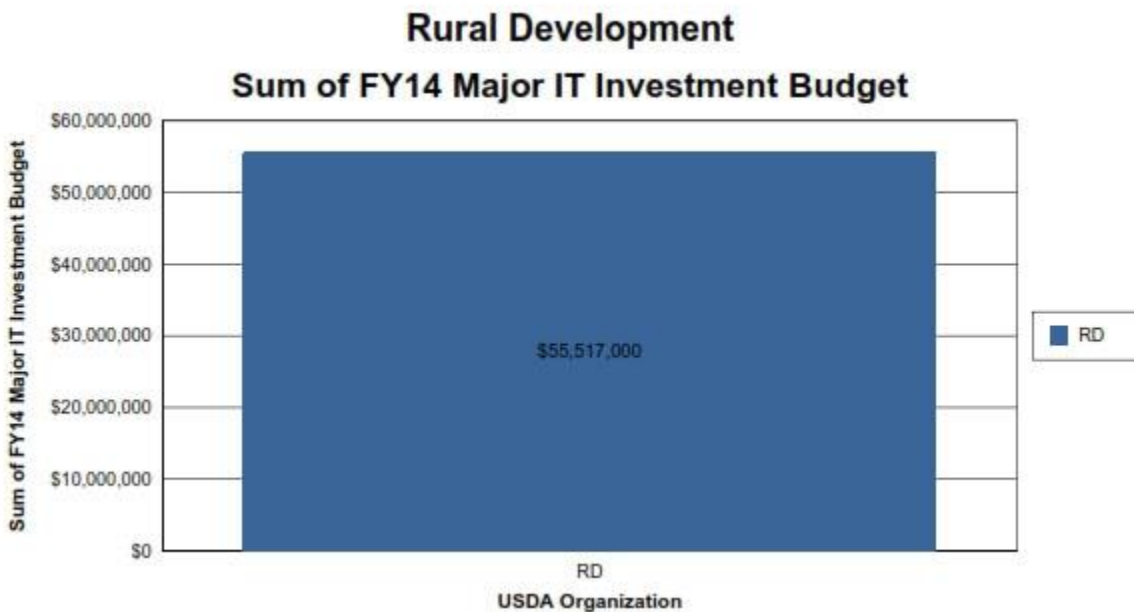


Figure 11: Summary of Rural Development Major IT Investment Spending

USDA Organization	Major IT Investment Name	PRM Strategic Goal	FY14 Budget
RD	Comprehensive Loan Program	P00.000.411	\$55,517,000
RD FY14 Major IT Investment Sum			\$55,517,000
Rural Development Total Major IT Investment Spending: \$55,517,000			

Comprehensive Loan Program (CLP)

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
To provide cost effective IT solutions and to streamline processes that are enable RD to make its loan	Through the CLP investment, RD consolidated loan and grant programs into a suite of	CLP is following a transition plan to achieve the	This investment addresses capability gaps with existing legacy systems, mobile end-user applications,

program available anytime, anywhere, and to anyone in rural America.	<p>system components that will provide the foundation for building shared services.</p> <p>CLP integrates and provides a new business rules engine, modern business intelligence tools and streamlined loan closing processes.</p>	<p>following:</p> <ul style="list-style-type: none">• Improve the delivery and access of RD services to citizens and the public;• Provide RD staff in the field offices and other locations with greatly improved automation support;• Enable more rapid rollout of new or changed programs;• Provide data accessibility and reporting to support executive decision making;• Reduce operations and maintenance complexity through eliminating duplicate IT systems; and,• Modernize the technologies to help ensure availability of support, improved systems security, and longevity of systems.	<p>shared services for common processes, and modern reporting capability.</p>
--	--	---	---

Future Architecture

The Secretary's *Administrative Streamlining Project* challenges USDA's leadership to innovate, consolidate, and achieve more effective and efficient methods of executing the mission and reducing operational cost. USDA's IT strategic plan promotes smarter investment strategies, the next generation of "corporate" governance, renewed emphasis on cost savings through "cloud" service offerings, and upgrading skill sets to better manage investment performance and oversight. To this end, the USDA has streamlined its IT investment portfolio from 301 investments in FY13 to 251 investments in FY14, by consolidating redundant and duplicative investments.

The Future Architecture articulates the future IT environment in alignment with the FEA 2.0 reference model categorizations.

The Future Architecture section builds from the information provided in the Current Architecture section of this document, and is organized by Mission Area, Agency, and Agency Investments. The Future Architecture section for each Major Investment contains a table that provides the following information:

- **Future IT Capabilities**: The Future IT Capabilities column presents the desired functionalities the investment is hoping to achieve through operational improvements and development and modernization projects.
- **Reduction and/or Consolidation of Duplicative IT**: The second column in the Future Architecture section identifies if the investment is facilitating the consolidation of IT infrastructure and will result in a reduction of duplicative IT.
- **Areas of Business Process Improvement**: The third column in the table provides an overview of each investment's business processes, and how those processes are evaluated and modified to ensure an investment reaches its targets.
- **Major Milestones**: Recent and planned milestones are listed in the Major Milestones column of the Roadmap for each investment.

An overview USDA's Future Architecture is provided on the pages that follow.

Office of the Chief Financial Officer (OCFO)

Financial Management Modernization Initiative (FMMI)

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>FMMI's Future IT Capabilities are outlined below.</p> <p>FMMI will use the following three-tier architecture: web access tier, application tier and database tier.</p> <p>FMMI will provide both real-time and point-in-time web-based reporting of financial activity.</p> <p>FMMI will also provide a robust data exchange capability for real-time service oriented services and batch interfaces.</p>	<p>To mitigate rising software maintenance costs NFC has partnered with the following organizations and vendors:</p> <ul style="list-style-type: none"> • USDA on enterprise software contract vehicles such as the Microsoft Enterprise Agreement to incur savings. • Vendors such as Oracle, Red Hat, Computer Associates, IBM, and VMware to negotiate better prices. 	<p>With the FMMI investment replacing CFMS, the common financial processes have been instituted across agencies of the department and reduced the number of separate agency financial systems, consolidating them into a central departmental system. With all of the data housed in a single system and common processes across the department, it will be much simpler to process the general ledger at year end to close the books for the fiscal year.</p> <p>Users are able to garner their own opinions through the annual survey conducted by the department to gather the users' opinions of the ability of FMMI to meet the department's financial business needs. In addition, it allows users to indicate the user friendliness (or usability) of the system to meet the department's needs. The results of these surveys assist OCFO determine where process can be improved.</p> <p>Finally, FMMI provides the following benefits associated with BPIs:</p> <ul style="list-style-type: none"> • FMMI centralizes and Standardizes Financial Management and Reporting; • Reduces redundant financial systems across the agency; and 	<p>The Financial Management Modernization Initiative (FMMI) is the new core accounting system for USDA.</p> <p>The current CFMS system, FFIS, is being retired. FMMI has subsumed the accounting, and the FMMI investment will now incorporate the remaining minor systems formerly reported in the CFMS investment.</p>

		<ul style="list-style-type: none"> Provides a single source of the truth for USDA financial reporting. 	
--	--	---	--

National Finance Center Shared Services (NFC SS)

The National Finance Center Shared Services investment (NFC SS) is managed by the National Finance Center within USDA's Office of the Chief Financial Officer (OCFO).

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>The Risk Mitigation project is the conversion of the Payroll System Development environment from IDMS to DB2.</p> <p>The General Support Systems Technology Refresh is a project with the objective of quickly procuring new hardware and software to replace (refresh) existing hardware and software as obsolescence approaches. The expected outcome is to allow for continued growth and to meet customers' performance expectations.</p> <p>In BY14 and BY15 NFC plans to complete the following Tech Refreshes: MS SQL Server, Oracle Database, PeopleTools, Mainframe Software, Mid-Tier Storage Management, Cloud Computing and Enterprise Management, Windows Hosts, and Linux Hosts. Additional refresh projects are scheduled for BY16 and BY17.</p>	<i>No information.</i>	<i>No information.</i>	<p>Phase I and Phase II of the Risk Mitigation Project will be completed in FY 14 and Phase III and Phase IV will be completed in BY15. Enterprise Reporting project is to modernize reporting at NFC moving from a collection on legacy reporting systems to a single corporate data warehouse and business intelligence toolset that will add value to NFC's HRLOB offering.</p> <p>The Enterprise Reporting project contains 4 builds. Build 1 and Build 2 will be completed in FY14, and Build 3 and Build 4 will be completed in BY15.</p> <p>In FY14 and BY15 NFC plans to complete the following Tech Refreshes: MS SQL Server, Oracle Database, PeopleTools, Mainframe Software, Mid-Tier Storage Management, Cloud Computing and Enterprise Management, Windows Hosts, and Linux Hosts. Additional refresh projects are scheduled for BY16 and BY17.</p>

Departmental Management

Optimized Computing Environment (OCE)

The Optimized Computing Environment (OCE) investment is managed by the International Technology Services (ITS) division within USDA's Office of the Chief Information Officer (OCIO).

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>The future ITS technical architecture consists of three logical tiers: End User, Office, and Data Center.</p> <p>In addition to the three logical tiers, Enterprise Management contains architecture components that span many tiers.</p> <p>The OCE investment will provide the modernization of the following SCA technology infrastructure areas:</p> <p>Modernization of Field Service Center Network Hardware - In order to replace aging hardware and support standardized field network architecture, a complete network hardware replacement was required. The routers and switches in all 2,761-field offices have been replaced as part of this task. Each office has one router, and the number of switches varies based on office requirements.</p>	<p>The OCE investment will streamline and modernize the back-end and office infrastructure to support SCA modernization initiatives.</p> <p>The focus of optimizing the computing environment, enhancing mobility support, and replacing the aging infrastructure is to ensure that the core infrastructure meets the demands of the SCA application modernization requirements.</p> <p>The future ITS technical architecture consists of three logical tiers: End User, Office, and Data Center.</p> <p>In addition to the three logical tiers, Enterprise Management contains architecture components that span many tiers.</p>	<p>Included in the International Technology Services (ITS)EA Modernization Blueprint / Transition Plan, the OCE represents the natural evolution from the current architecture, founded by the Common Computing Environment (CCE) that has supported the Service Center Agencies (SCA). The OCE provides the optimized IT infrastructure architecture to support the major SCA initiatives the FSA/MIDAS; NRCS/CDSI and the RD/CLP programs.</p>	<p>Modernization of Field Service Center Network Hardware - In order to replace aging hardware and support a standardized field network architecture, a complete network hardware replacement was required. The routers and switches in all 2,761 field offices have been replaced as part of this task. Each office has one router, and the number of switches varies based on office requirements.</p> <p>Optimize SCA Network: Wide Area Network (WAN) Optimization hardware is being placed at key points in the USDA infrastructure to provide the streamlining needed to expedite network traffic.</p> <p>Upgrade Head End Network Hardware: The Head End is a key piece of network infrastructure. It manages all network traffic into and out of the data centers and across the entire ITS environment.</p>

<p>SCA Network Optimization - Wide Area Network (WAN) Optimization hardware is being placed at key points in the USDA infrastructure to provide the streamlining needed to expedite network traffic.</p> <p>Head End Network Hardware Upgrade - The Head End is a key piece of network infrastructure. It manages all network traffic into and out of the data centers and across the entire ITS environment.</p> <p>Head End WAN Optimization - Head End WAN Optimizers support the increasing number of WAN Optimizer appliances in the field.</p> <p>Office Environment - VoIP Site Installations - Installation of VoIP technology to replace and modernize phone systems at SCA service centers. This installation through OCE will allow a common upgrade for all SCA users co-located in the field office and provide centralized management of the phone systems.</p> <p>Office Environment - Server Virtualization Storage Backup - the setup and configuration of the virtual servers SCA Service Centers. Includes the centralized backend infrastructure, licensing and configuration of backup capabilities to the data center.</p>			<p>Optimize Head End WAN: Head End WAN Optimizers support the increasing number of WAN Optimizer appliances in the field.</p>
--	--	--	---

USDA Identity & Access Management

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>IAM will include the following IT Capabilities in the future:</p> <ul style="list-style-type: none"> • Provide a back-end solution to electronically identity proof customers and upgrade the eAuthentication account to a level2; • Accept external credentials; and • Mobile authentication. 	<p>Currently, USDA agencies have over 13,000 Local Registration Agents (LRA) providing identity proofing activities. This solution will dramatically reduce the number of customers required to physically visit an LRA.</p> <p>Expand eAuthentication service to accommodate the needs of customers and USDA agencies.</p> <p>Expand the current native mobile eAuthentication service to Android devices.</p>	<p>IAM is working to improve the following business processes:</p> <ul style="list-style-type: none"> • Enhancing customer convenience; • Enabling non-federal users to securely access online services across multiple agencies without requiring a new username and password for each service; and • Providing agencies the ability to include eAuthentication service for Android mobile applications. 	<p>Provide electronic mechanism: Target date 9/30/2014.</p> <p>Technical implementation including initiation, design, development, and testing: Target date 9/30/2014.</p> <p>Production rollout, including communication plan: Target date 12/31/2014.</p> <p>Develop, test, and implement solution: Target date 12/31/2014.</p>

USDA Security Operations Center (ASOC)

As USDA seeks to achieve greater efficiencies and cost reductions from its business channels, the degree of information security risk increases, and the number of necessary security controls rises. USDA's increased focus on securing the enterprise demands a scalable, integrated solution to protect confidential, personal, and sensitive data. The future architecture of the information security program is aligned to the USDA IT Strategic Plan in combination with information and information system risk management responsibilities and federal mandates for cyber security compliance. The future architecture of the Department's information security program also addresses security priorities as identified and defined by USDA leadership, business owners, and users of USDA information and information systems. The Department's future business needs require scalable cyber security products and services an IT security governance framework that includes the following components:

- **An Inclusive Security Program** that is composed of stakeholders within the OCIO, USDA agencies, and external USDA community.
- **A Risk Management Framework (RMF)** customized to meet business needs and compliance to federal mandates.

- **An Open and Transparent View** of USDA operations that will enable the SOC to establish a holistic view of the Department and to facilitate information sharing across the enterprise.
- **An Enterprise Security Architecture and Security Services** to deploy a broad-burst spectrum of security products and managed security services.
- **Information Security Training and awareness** that is interactive, comprehensive, and compliant with federal laws, regulations, and standards.

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>The USDA Security Operations Center is focused on providing the following IT Capabilities in the future:</p> <ul style="list-style-type: none"> • Enhance Incident Management technical services, system tools and procedural methods; • Develop, manage and communicate to relevant authorities all aspects of formal incident detection, response and reporting processes; • Provide robust Cyber Security Shared Services offerings; and • Implement a continuous Assessment & Authorization (A&A) /Risk Management Framework Evolution. <p>Develop a business focused risk model.</p>	<p>In compliance with the IT streamlining initiative, enterprise contracts for standardizing security products and services will result in reduction in duplication of agency procured cyber security products and services, and reductions in cost per unit. Moreover, these efficiencies will simplify USDA's IT Security infrastructure, improve asset management and data integrity, and improve federal compliance.</p>	<p>USDA has built security into Capital Planning's IT decision-making process for investments, as outlined by National Institute of Standards and Technology (NIST) Special Publication (SP) 800-65 and Departmental policies and procedures.</p> <p>ASOC plans to continuously improve its Information Security Continuous Monitoring (ISCM) program - as prescribed by the Office of Management and Budget (OMB) and Department of Homeland Security (DHS) Continuous Diagnostic and Mitigation (CDM) program.</p> <p>ASOC intends to establish an IT Security Governance structure that is inclusive of Department and USDA agencies and staff offices.</p> <p>Establishing a communication framework between the agencies and the Department will improve adoption of security controls which ultimately increase the agency's ability to respond to threats or improve our security posture.</p>	<p>Enterprise Cyber Security Products and Services Blanket Purchase Agreement (BPA). Target: July 2014.</p> <p>Established ISCM strategy for USDA. Target: September 2014.</p> <p>Integration of DHS CDM capabilities as outlined by OMB. Target: September 2015.</p> <p>Technical refresh of Security Systems. Target: September 2016.</p> <p>Conversion of USDA to Continuous A&A. Target: September 2015.</p>

Integrated Acquisition System (IAS)

The Integrated Acquisition System (IAS) is an enterprise wide procurement system that has over 6,000 active users comprised of Budget Approvers, Contracting Officers,

Receivers, and Payment Specialists across 10 agencies nationwide. This enterprise-wide system serves the vast USDA procurement community by providing significant efficiencies.

IAS is constantly analyzing its architecture so as to provide an efficient and effective service to its users by offering innovative, cost effective and efficient user functionalities to its users.

IAS aims to reduce future operational costs within the current environment by reducing the number of environments, downsizing training and by moving the training application to a more cost effective server.

IAS is also conducting analysis on moving from the multi COTS environment to a One COTS environment that will provide enhanced benefits to the users, more robust functionalities and a simplified architecture that will reduce security vulnerabilities and the effort to mitigate them. IAS is currently planning on providing.

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>IAS is analyzing the options to move IAS from multi COTS to a One COTS environment.</p> <p>A move to One COTS includes the following benefits:</p> <ul style="list-style-type: none"> • Simplifying an overly complex architecture with over 30 known issues negatively affecting users; • Enabling user enhancement requests to receive the requisite attention; • Implementing more robust requisition functionality; and • Simplifying architecture to reduce security vulnerabilities and the effort to mitigate. <p>PSD is currently analyzing the cost/benefits analysis of different One COTS alternatives of moving from multi-COTS to One COTS.</p>	<p>IAS aims to reduce duplicative IT and ensure that effective and efficient services are provided by targeting the following improvements:</p> <ul style="list-style-type: none"> • Reducing the number of environments from five to four; • Downsizing the training environment to replicate the functionality of production without requiring all the data in production; and, • Moving the Training PRISM database and the Oracle iProcurement application suite from IBM P595 AIX to Linux to reduce platform and maintenance costs. 	<p>IAS will implement and measure the following cost-saving BPIs:</p> <ul style="list-style-type: none"> • Centralize invoicing in Financial Modernization Management Initiative (FMMI); • Enhance IAS functionality by removing Oracle-PRISM and IAS-FMMI interface limitations; • Increase user productivity; • Reduce calls to IAS and FMMI Help Desks; • Simplify architecture to improve system responsiveness for users; <p>In addition, IAS is evaluating hosting solutions to identify opportunities to sustain reliability, improve current service levels, increase architecture scalability, comply with the Federal cloud-first policy, and reduce operating costs.</p>	<p>The following list provides the major milestones planned for IAS over the next five years:</p> <ul style="list-style-type: none"> • Discoverer Data Integration • IPP Deployment • Message Queuing Software • Infrastructure Changes to the current environment • Perform analysis to move from the current multi COTS solution to a One COTS solution.

USDA Enterprise End User Shared Services

The Enterprise End User Shared Services (EUSS) is one of USDA's new Major IT Investments. The EUSS investment is managed by the International Technology Services (ITS) division within USDA's Office of the Chief Information Officer (OCIO). ITS did not submit information about the EUSS investment for the FY14 USDA Roadmap. The information provided in the table below was derived from previously reported information.

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>Within EUSS, USDA is implementing an enterprise-wide directory service, known as Enterprise Active Directory (EAD), to serve as a scalable and robust foundation for a USDA-wide information IT infrastructure.</p>	<p>The EAD services consolidated through the EUSS investment provides secure reliable access to IT resources and simplifies IT infrastructure management.</p> <p>EAD is an enterprise service and the cloud based USDA Enterprise Messaging Service is dependent upon it.</p> <p>Other IT services such as Enterprise Virtual Private Network, Mobile Device Management, Enterprise Fax2Mail, and Managed Print Services interact with EAD as well.</p> <p>EUSS-related services are focused on streamlining efforts to better manage costs, improve security and increase the efficiencies of critical IT resources.</p>	<p>Enterprise Active Directory (EAD) infrastructure is designed to effectively support agency and Department business processes and performance objectives by establishing a single repository for Access and Authentication. The directory service is based on the Microsoft Windows Server 2012 version of Active Directory.</p>	<p>The EUSS investment will provide full support to approximately 40,000 end users located in over 3,000 offices across the United States and its territories in FY14.</p> <p>In FY15, specific IT services are to reach across the Department and will assist all 120,000 USDA employees world-wide. A wide range of technical support will be offered to all USDA Agencies including: hardware and software support; server administration; network management; equipment inventory and tracking; telephony, and other forms of communications; security; and other services in all years of the investment.</p>

USDA Enterprise Data Center & Hosting Shared Services

The USDA Enterprise Data Center & Hosting Shared Services (USDA EDC) investment promotes the shared (multi-tenant), cost-effective and sustainable Federal data center model for USDA agency business application hosting needs. Through the USDA EDC investment, USDA's IT Portfolio will achieve the following benefits:

- Promote the use of Green IT by reducing the overall energy and real estate footprint of USDA's hosting locations;
- Reduce the cost of data center hardware, software and operations through

consolidation;

- Increase the overall IT security posture for USDA;
- Shift IT investments to more efficient computing platforms and technologies; and,
- Achieve the goals of USDA's Green Information Technology Strategic Plan published January 12, 2009.

For FY2014, the Data Center will focus on expanding the service offering to include a rapidly provisioned, private cloud-based, Infrastructure-as-a-Service offering.

For FY2015, the Data Center will focus on developing a customer self-provisioning cloud-based service offering for Infrastructure-as-a-Service.

The following table expands on the planned Future Architecture for the EDC investment.

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>"Big Data" services (Enterprise Cloud-Based Storage)</p> <p>The USDA requires a service which will enable the consolidation of data to ensure protection against loss and centralization for access, analysis and presentation to the public via various tools and/or APIs</p>	<p>Implementation of "Big Data" services will reduce the need for extensive use of disparate disk storage systems and methodologies in use today.</p> <p>The USDA Service Center Agencies and organizations have extremely large amounts of data which are spread throughout the enterprise on disparate storage platforms, USB drives, external hard drives, and DVDs.</p>	<p>The EDC investment will utilize BPIs to support the Federal Data Center Consolidation Initiative and will implement technologies that enable the centralization of large data sets utilizing commodity hardware and low-cost, or free open source software, to ensure the lowest total cost of ownership while ensuring the protection of the data against loss and enabling the use and access of the data for presentation and analysis by persons or organizations within the USDA or the public sector.</p>	<p>Investigation of low-cost commodity hardware and software (FOSS). Target: First half of FY14.</p> <p>Design a platform for the storage and presentation of large data sets via various tools and/or APIs. Target: Second half of FY14.</p> <p>Procure software and hardware for approved "Big Data" designs. Target: September FY 14.</p> <p>Implement approved designs and procured hardware and software to support "Big Data" services. Target: 1st half of FY15.</p>
<p>Enterprise Service Bus (ESB)</p> <p>The USDA requires a method of allowing machine-to-machine or application-to-application communication that is low cost and highly effective.</p>	<p>Implementation of an ESB will reduce the need to custom integrate machine-to-machine or application-to-application communication which is currently performed by developing a one-to-one relationship between machines and applications as needed.</p> <p>This one-to-one relationship requires continual and redundant integrations to be performed which increases costs and also</p>	<p>The EDC investment's ESB service supports the M 13-13 "Open Data" initiative, and ensures BPIs through the enablement of a "write once, use many" capability wherein integrations are written only one time in order to enable use of the ESB. Multiple machines and/or applications may then make use of that single integration without requiring multiple complex integration efforts on a one-to-one basis.</p>	<p>Investigation of ESB technologies. Target: 1st half FY14</p> <p>Recommendation for ESB technical design direction. Target: 1st half FY14.</p> <p>Procurement and Implementation of approved ESB technical design and direction. Target: 2nd half FY14.</p> <p>Production ESB use – beginning of FY15</p>

<p>Individual Cloud-Based Storage</p> <p>The USDA requires the ability to enable its employees to store data in a manner, which increases availability on and off the USDA network via PC-based browsers and mobile browsers while in and out of the office.</p>	<p>increases complexity.</p> <p>Implementation of an Individual Cloud-Based Storage service will reduce, or eliminate, the need for multiple methods of storing and transporting data (I.e. removable hard drives, external hard drives, USB drives, and DVDs)</p> <p>It will also reduce, or eliminate, the need for complex and expensive technologies (I.e. VPN appliances and clients) to enable access to data which is only available on USDA's corporate storage platform(s).</p>	<p>The implementation of Individual Cloud-Based Storage services will enable USDA personnel to store files in the "cloud" and access them from any device (PC or mobile) from within or outside the office.</p>	<p>Investigation of Individual Cloud-Based Storage technologies. Target: 2nd half FY13.</p> <p>Recommendations for Individual Cloud-Based Storage technical design and direction. Target: 1st quarter FY14</p> <p>Procurement and implementation of approved Individual Cloud-Based Storage technical design and direction. Target: 1st half FY14</p> <p>Production availability of Individual Cloud-Based Storage. Target: 3rd quarter FY14.</p>
<p>Self-Service Infrastructure as a Service</p> <p>The USDA requires the ability to enable its SCAs and organizations an efficient and cost-effective method of procuring and deploying servers to provision the applications and services necessary to complete their mission and goals.</p>	<p>Implementation of a Self-Service Infrastructure as a Service platform utilizing commodity hardware and, to the greatest extent, free open source software (FOSS) will reduce the total cost to deploy virtual servers and will increase capabilities for USDA SCAs and organizations.</p> <p>This lower cost and increased capability will help foster a more rapid adoption of FDCCI which will reduce the need for expensive data center server installations throughout the USDA.</p>	<p>Support the Federal Data Center Consolidation Initiative.</p> <p>Reduction in overall IT costs for the USDA by way of enabling USDA SCAs and organizations to utilize a low-cost and feature rich self-service Infrastructure as a Service environment to increase the pace of data center consolidation.</p> <p>Enablement of various implementations of Cloud-based virtual data centers such as:</p> <ul style="list-style-type: none"> • Virtual Private Data Centers • Virtual Community Data Centers • Virtual Hybrid Data Centers 	<p>Investigation of Self-Service Infrastructure as a Service technology. Target: 1st quarter FY13</p> <p>Recommendations for Self-Service Infrastructure as a Service technical design and direction. Target: 2nd half FY13.</p> <p>Procurement of initial hardware and software necessary to implement the approved technical design and direction. Target: End of FY13.</p> <p>Installation of procured hardware and software in order to implement the approved technical design and direction. Target: 1st half FY14</p> <p>Production availability of initial Self-Service Infrastructure as a Service. Target: 2nd half FY14</p>
<p>Software Defined Networking</p> <p>USDA has, throughout its data centers, a significant amount of physical networking equipment. This equipment is expensive and requires routine technical refresh, which incurs more cost.</p>	<p>Implementation of Software Defined Networking (SDN) will enable the USDA to reduce its installation of physical networking devices throughout its Enterprise Data Centers. This will enable consolidation of physical networking devices by replacing them with virtual ones; thereby reducing cost and increasing flexibility due-to-</p>	<p>Support the Federal Data Center Consolidation Initiative.</p> <p>Reduction in overall IT costs for the USDA by way of enabling USDA EDCs to provide complex networking solutions and capabilities without requiring as much physical networking hardware which reduces overall costs to the</p>	<p>Investigation of SDN technologies. Target: 1st quarter FY13</p> <p>Recommendations for SDN technical design and direction. Target: 2nd half FY13.</p> <p>Procurement of initial hardware and software necessary to implement the approved technical design</p>

	the-fact that enhancements in capability will no longer necessitate as many large physical infrastructure procurements.	Department.	and direction. Target: End of FY13. Installation of procured hardware and software in order to implement the approved technical design and direction. Target: 1 st half FY14. Production availability of initial SDN capability. Target: 2 nd half FY15.
Multi-tenant Virtual Desktop Infrastructure (VDI) The USDA requires the ability to enable its SCAs and organizations by providing an efficient and cost-effective method performing development of applications and management of large data sets on desktop-like infrastructure, which is near the application being developed or data being managed or manipulated to prevent the need to perform these functions across the Wide-Area Network (WAN).	Implementation of Multi-tenant VDI will enable the USDA to provide desktop-like environments for multiple USDA SCAs and other organizations so that they may access development environments or large data sets without the need to traverse the WAN. This will reduce the pace at which bandwidth will need to be increased as the data will reside "locally" to the server or data which negates the need for larger WAN links to allow for efficient movement of the data between the developer or data manager and their application or large data set.	Support the Federal Data Center Consolidation Initiative. Reduces the requirement for USDA SCAs and other organizations to implement large and expensive storage platforms local to their developers or data managers reducing the overall cost to the government while increasing efficiencies through economies of scale within the data center.	Investigation of VDI technologies. Target: 1 st quarter FY13. Recommendations for VDI technical design and direction. Target: 2 nd half FY13. Procurement of initial hardware and software necessary to implement the approved technical design and direction. Target: End of FY13. Installation of procured hardware and software in order to implement the approved technical design and direction. Target: 1 st half FY14. Production availability of initial VDI environment. Target: 2 nd half FY14. Expanded production availability of VDI environment. Target: 1 st half FY15.
High Process Computing (HPC) The USDA requires the compute capability to process and perform analysis or simulation on extremely large data sets	USDA SCAs and other organizations require the need to perform simulations and process or analyses extremely large data sets. Implementation of a HPC solution within the USDA will preclude the need for these SCAs or other organizations from having to procure large computer platforms or lease these services outside the USDA. Additionally, this HPC platform may be able to utilize compute resources of existing server infrastructure which may otherwise sit idle, or be underutilized, during off-peak hours. Thereby	Support the Federal Data Center Consolidation Initiative. Implementation of a HPC service will allow for consolidation of disparate resources which are owned, or leased, throughout the Enterprise enabling FDCCI and providing increased capabilities to the USDA while lowering cost through economies of scale.	Investigation of HPC technologies. Target: 2 nd half FY14. Recommendations for HPC technical design and direction. Target: 1 st quarter FY15. Procurement of initial hardware and software necessary to implement the approved technical design and direction. Target: 1 st half FY15. Installation of procured hardware and software in order to implement the approved technical design and direction. Target: 3 rd quarter FY15.

	reducing costs and increasing capabilities.		<p>Production availability of initial HPC environment. Target: 2nd half FY15.</p> <p>Expanded production availability of HPC environment. Target: 1st half FY16.</p>
<p>Network Top Level Architecture (TLA)</p> <p>The USDA requires a more robust highly available top level network architecture to increase availability and enable expanded capabilities for multi-tenancy for the further implementation of various private, hybrid or community virtual data centers within the cloud as well as the enablement of an active-active clustering of geographically separate data centers.</p>	<p>USDA SCAs and other organizations require the ability to utilize the EDCs in an active-active configuration to enhance their ability to ensure uptime of their applications so that their applications can reside in either data center or an outage of any one data center does not significantly impact their application or service.</p> <p>Additionally, a more robust TLA will enhance the EDCs ability to provision cloud services to various federal, state and local customers by way of providing a method to accept external connections while maintaining security and integrity within the network.</p>	<p>Support the Federal Data Center Consolidation Initiative.</p> <p>Implementation of a more robust TLA design will enable greater capabilities within the USDA cloud thereby garnering a greater adoption of FDCCI due to the fact that services will be increasingly available by way of offering a more comprehensive failover architecture to ensure uptime even in the event of a complete outage of a single data center's connections to the WAN.</p> <p>This design will also enable increased capabilities for active-active designs which preclude the need for failover or "Disaster Recovery" as the application or service will be running in production, live, in more than one data center so the outage of any one data center is minimally impactful to the performance of the application or service.</p> <p>Finally, this design will enable the USDA EDCs to more easily, and securely, accept connections from external organizations within federal, state or local governments.</p>	<p>Investigation of TLA technologies. Target: 2nd half FY13.</p> <p>Recommendations for TLA technical design and direction. Target: 2nd half FY13</p> <p>Procurement of initial hardware and software necessary to implement the approved technical design and direction. Target: 2nd half FY13</p> <p>Installation of procured hardware and software in order to implement the approved technical design and direction. Target: 1st half FY14.</p> <p>Production availability of initial TLA environment. Target: 2nd half FY14.</p> <p>Expanded production availability of TLA environment. Target: 1st half FY15.</p>

USDA Enterprise Messaging System – Cloud Services (EMS-CS)

The Enterprise Messaging Systems – Cloud Services (EMS-CS) is one of USDA's new Major IT Investments. The EMS-CS investment is managed by the International Technology Services (ITS) division within USDA's Office of the Chief Information Officer (OCIO).

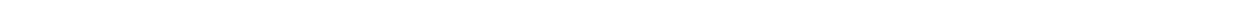
Future IT	Reduction and/or	Areas of Business	Major Milestones
-----------	------------------	-------------------	------------------

Capabilities	Consolidation of Duplicative IT	Process Improvement	
The software as a service deployment will include Exchange Online for messaging and calendaring, SharePoint Online for document collaboration, Office Communications Online/Lync for instant messaging and Office Live Meeting for web conferencing. USDA employees will benefit from having better access to information, improved collaboration and information sharing. Key Stakeholders are the CIO office and International Technology Service (ITS).	No information.	No information.	No information.

USDA Enterprise Telecommunications Shared Services

Business Need(s)	Current IT Capabilities	Requirements	IT Solutions, Benefits, and Goals
Provide, manage, and support USDA telecommunications services for USDA's agencies.	<p>The Universal Telecommunications Network (UTN) Next Generation (NG) provides shared network services, used by all of USDA including U.S. Public, providing Trusted Internet Connection (TIC) and Security Operations Capability. This investment is considered the USDA Wide Area Network (WAN) (aka Unified Telecommunications Network – UTN) solution and as such holds a singular focus in that all departmental and agency Local Area Networks (LAN) are configured to pass traffic through the WAN, both internal to USDA and with external customers through Trusted Internet Connections (TIC). As such the U.S. Public that desire to do business with, communicate to, or requesting information from USDA are served by this investment.</p> <p>The Unified Telecommunications Network (UTN) a managed services solution, is the</p>	<p>Adhere to legislative mandate M-05-22</p> <p>Plan USDA transition to Internet Protocol version 6 (IPv6)</p> <p>Support the Telecommunications Network Stabilization and Migration Procedure (TNSMP), Support Departmental and Unplanned Waiver Process</p> <p>Maintain the Forecast Inventory Resources database,</p> <p>Manage operations of telecommunications services,</p> <p>Manage the Department's Enterprise Backbone Network and Internet Access,</p> <p>Manage of Domain Name Services, IP addressing and other shared Departmental network/data services,</p> <p>Provide engineering and project assistance to USDA</p>	<p>This investment supports the following Homeland Security mission area: Protection of critical infrastructure and key assets.</p> <p>UTN has enabled USDA's migration from stovepipe network solutions toward an enterprise approach that maximizes the collective buying power to realize best value in telecommunications services.</p> <p>Since deployment, this investment has achieved great success, consistently exceeding initial performance expectations in terms of availability, reliability, network security, bandwidth, and in documented customer satisfaction. Customer satisfaction surveys are accomplished through the Agencies Telecommunications Mission Area Control Officer (TMACO's) on a quarterly basis and are normally directed towards specific topics presented at the period or actionable event;</p>

	<p>USDA enterprise-wide backbone to the Internet and data centers for all USDA agencies and provides the contract mechanism for USDA agencies to procure network services such as access circuits, virtual private networks, network monitoring, etc.</p> <p>UTN-NG is the backbone that enables such critical public-facing USDA systems as the Farm Loan Program, Public Education Materials (e.g., Food Pyramid, Food Safety), School Lunch Program, Food Stamp Program, and Forest Service Incident Response Dispatch Service (ROSS), etc. USDA envisions increased use of and reliance upon UTN-NG well into the future.</p>	<p>agencies and staff offices,</p> <p>Provide network modeling, analyses and optimization,</p> <p>Provide network design and development assistance to USDA agencies and staff offices,</p> <p>Implement, manage and maintain USDA Telecommunications Programs through its department-wide telecommunications and network security services and operations,</p> <p>Develop and coordinate technology programs of the Federal Government and related activities and organizations,</p> <p>Provide guidance and facilitate governance for efficient and cost-effective use and management of USDA telecommunications resources</p> <p>Lead the Department's effort to improve telecommunications services and reduce costs by evaluating and improving USDA telecommunication processes.</p>	<p>additionally ENS is currently acquiring a new Network Maintenance Support Services (NMSS) contractor with imbedded customer survey SLA requirements with an anticipated implementation date of third quarter FY-14. The UTN architecture has proven sufficiently flexible to readily absorb new mandates from USDA or OMB, such as new IT security requirements, Trusted Internet Connection (TIC) and IPv6. UTN Next Generation (NG) is currently using GSA Networkx contract vehicle which expires 2017, provides the next generation of enterprise-wide services such as email, enterprise messaging, data center consolidation, and secure video conferencing, and common VPN usage. UTN-NG is consistent with the Departments enterprise architecture goal of replacing multiple, redundant systems and technology components with coordinated, enterprise-wide approaches and is documented in the USDA Enterprise Architecture Transition Strategy. Commencing within the USDA/DM Streamlining Initiative ENS was requested to provide a transition strategy with the intent to maximize current department and agencies networks towards a more unified network. From the Streamlining Initiative a general overarching concept was presented to USDA/OCIO for possible network consolidation and/or enhancements. From this activity OCIO has engaged a third party to develop an enterprise "as is" report with follow-on activities in supporting a future network "to be" report and an acquisition strategy to transition towards the "to be" network</p>
--	---	--	---



Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
UTN-NG provides the next generation of enterprise-wide services such as email, enterprise messaging, data center consolidation, and secure video conferencing, and common VPN usage.	<p>UTN-NG is consistent with the Departments enterprise architecture goal of replacing multiple, redundant systems and technology components with coordinated, enterprise-wide approaches.</p> <p>As the enterprise-wide telecommunications infrastructure for the Department, the UTN-NG is a key fundamental technology enabler of Department-wide efforts such as the USDA eGovernment initiatives and the USDA Continuity of Operations (COOP) network.</p> <p>Accomplished through USDA Agencies and Offices utilizing a consolidated shared service, individual agency costs are reduced through this collaborative effort. USDA utilized the General Service Administration Networkx Contract tools to develop and award these shared services, GSA estimates that Agencies like USDA saved 15% or better through the use of their Networkx contract.</p>	<p>In FY14 OCIO has undertaken to develop an Enterprise Analysis Study using a third party vendor to review further modernization efforts, build an acquisition strategy for a future enterprise network, and enhance cost savings initiatives.</p> <p>This study is expected to be completed by the end of FY14 and follow-on activities will continue into BY15.</p>	<p>Providing economies of scale in information technology & telecommunication services. Target: FY14.</p> <p>Processing and maintaining usage and billing data from invoices and other sources. Target: FY14.</p> <p>Providing Centralized Billing support, to include the coming GSA Networkx Contract. Target: FY14.</p> <p>Coordinating the Telecommunications Mission Area Control Officers (TMACOS). Target: FY14.</p> <p>Strengthen existing services and develop an alternative service model to include best of service providers' capabilities and exploit cost saving through these actions. Target: BY15.</p>

Farm and Foreign Agriculture Service

Consolidated Farm Loan Program Information & Delivery Systems #103

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
The conceptual target architecture for the CFLPIDS investment retires the PLAS system and migrates its transaction processing functionality and	<p>As new CFLPIDS systems / components are implemented, the legacy processes are retired.</p> <p>With the elimination of</p>	<p>The investment methodology is to utilize a modular approach to replace legacy processes.</p> <p>With the retirement of the</p>	The CFLPIDS project began in 2002. It is anticipated that the new system will become fully functional by the end of 2017 with the replacement of the legacy

<p>interface functionality currently performed by PLAS into the DLS system.</p> <p>Loan making and servicing processes, which currently require 1-2 days to process, should be processed in minutes.</p> <p>By reengineering redundant processes, centralizing and integrating data, and leveraging modern technology, FLPIDS will allow the FLPs business objectives to drive technology implementation, rather than allowing legacy technology to drive business operations.</p> <p>The CFLPIDS investment has been specifically designed to achieve the following key IT benefits:</p> <ol style="list-style-type: none"> 1. Enable an integrated, timely view of the programs risk profile by creating a centralized data repository. 2. Streamline and modernize business processes that eliminate redundant data entry. 3. Faster delivery and obligation of loans to eligible farmers and ranchers. 4. Automation of routine tasks that currently require substantial manual effort. 5. Redeployment of some USDA Service Center staff to higher value added activities. 6. Significantly reduce scheduled and unscheduled system outages and associated productivity losses. 7. A return to regular work schedules for USDA Service Center staff due to improved system availability. 	<p>PLAS and the migration of PLAS reporting to the Oracle FLP data mart there will be significant savings in Greenbook charges paid to NITC. The annual savings would be approximately 1.5 million dollars. There are also productivity increases in loan making and servicing functions that will be realized when DLS is performing all current PLAS functions.</p>	<p>PLAS mainframe system, FLP will be supported by an online real-time system that will provide loan making and servicing functions. The removal of a nightly batch process will result in a reduction in the time required to provide loan funds to farmers and ranchers.</p> <p>With the retirement of the PLAS mainframe system, FSA will see a significant reduction in charges paid to NITC, eliminating all mainframe Greenbook charges related to the PLAS system.</p>	<p>PLAS system.</p>
--	---	---	---------------------

8. More accurate, comprehensive, reliable and available data for reporting, research and inquiry.			
9. Reduce loan delinquency through improved system capability to ensure that official lending procedures are followed for each loan application.			

Farm Program Modernization (MIDAS) #097

MIDAS is managed by the Farm Service Agency (FSA).

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>This project will reduce the risk of hardware failure by replacing the farm program applications residing on the outdated AS400/S36 computing platform with an integrated COTS solution, SAP.</p> <p>It will accomplish increased compliance with modern internal control structures and effectively implement improved IT security.</p> <p>MIDAS will provide capability to meet the increasing demand for customer self-service and eliminate FSA's reliance on aging technology.</p>	<p>MIDAS will centralize data assets to support farm programs, eliminate program specific duplication of functionality and non-integrated, distributed data that exists between farm program software applications.</p>	<p>MIDAS will reengineer business processes to be common.</p> <p>The productivity impact of FSA's overall migration/modernization for helping to eliminate dependency on a proprietary and restrictive operating environment is dependent on the successful reengineering of business processes into an SAP ERP solution and movement of business operations to an Enterprise Hosting Environment. By improving business processes and leveraging SAP ERP core functionality and technical architecture, we expect gains in day to day tasks thus reducing the administrative burden on county office employees and allowing for improved customer service.</p> <p>Both county office employees and customers will see changes to common processes with MIDAS. Some immediate benefits include the integration of GIS updates and their automation in farm records, streamlining of the reconstitution process,</p>	<p>MIDAS is being developed and deployed in a phased modular manner with multiple Deployments of functionality within each major Release. MIDAS is deploying Release 1 functionality in a three phased approach:</p> <p>Release 1.0 Farm Records went live in April 2013 and development of</p> <p>Release 1.0 Acreage Reporting and Inventory Reporting and 1.1 MAL and BIN functionality continues.</p> <p>MIDAS is the process of rebaselining, so the overall schedule is currently unavailable: The MIDAS program will undergo a rebaseline necessary to fully complete the mission-critical components of Farm Program Delivery. This is currently underway with extensive planning meetings ongoing that include all facets of the FSA business and the OCFO team supporting the MIDAS infrastructure.</p>

		modernization of producer name and address data (Business Partner), and integration of the compliance crop table (Product Master). MIDAS is also good for producers because it allows them to report significant amounts of information about their farm or ranch once, not multiple times for multiple programs. Also, MIDAS improvement means producers are no longer limited to conducting business in one specific FSA service center	
--	--	---	--

RMA-13 Emerging Information Technology Architecture (EITA)

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>This investment will automate functions now performed manually:</p> <ul style="list-style-type: none"> Manual underwriting; Post-SRA changes to accounting reports; and, Poor/cumbersome end-user reporting tools. 	<p>Expect \$1M-2M annual savings from legacy system license reductions.</p> <p>Expected rough order of magnitude of the performance improvement/productivity achieved from the investment is 200%.</p> <p>Rough positive ROI expected 6 years after implementation.</p> <p>This investment reduces duplication in terms of the number of databases and stove-piped processes found in legacy systems. To ensure effective and efficient use of IT infrastructure, agency utilizes governance boards.</p>	<p>This investment supports the reengineering of all business and financial systems associated with delivery of the crop insurance program.</p> <p>The RMA-13 investment has provided cost and time savings for stakeholders through improved processing and turnaround times of private sector data delivered to our partners.</p> <p>In terms of process improvements and customer satisfaction, the agency has implemented an Agile Development methodology that allows client stakeholders to fully participate in defining priorities, managing their backlogs, and working with IT personnel in the tracking of costs, this inclusiveness and transparency has led to greater user satisfaction.</p>	<p>Several major milestones planned during the next five years include:</p> <p>Program Education Mobile Capability. Target: Q4, FY14.</p> <p>Build Data Warehouse and Data Marts. Target: Q4, BY15.</p> <p>Policy Acceptance Leverage of Emerging Technologies. Target: Q2, BY16.</p> <p>Application Reengineering to Support Cloud. Target: Q4, BY18.</p>

Food, Nutrition, and Consumer Services

The USDA FNCS leadership is looking at utilizing Federal-wide and USDA-wide Shared Services, where possible, to satisfy the business needs for all the FNCS programs.

FNCS is utilizing the USDA Enterprise Data Center (EDC) for hosting 16 applications and looks to expand into other applications in the future. FNS is also looking at the implementation of an enterprise-wide content management system, improved asset management system, and enterprise-wide source code version control system. The agency is also looking at leveraging mobile technologies to provide the FNS constituency ubiquitous access to FNS services, programs, systems, and information.

FNCS IT Infrastructure

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>FNCS IT Infrastructure currently has several IT modernization efforts in progress:</p> <ul style="list-style-type: none"> • FNS-wide Alfresco Implementation; • Web Content Filtering; • Cisco Quality of Service Policy Manager (QPM); • Enterprise Wireless Access Project; and • Information Security initiatives - EnCase Cyber Security deployment, nCircle realignment, Nitro consolidation, Rapid 7 Enterprise Vulnerability Scanner (EVS) implementation, and AppScan implementation assistance. 	<p>FNS migrated to USDA's Enterprise Mail System – Cloud Service, EMS.</p> <p>FNS takes full advantage of cloud computing benefits to maximize capacity utilization, improve IT flexibility and responsiveness, and minimize cost by hosting at USDA's National Information Technology Center (NITC) all of the systems/ applications under the FNCS IT Infrastructure investment.</p>	<p>FNS is using the Alfresco platform to implement rules and custom document workflow actions for a majority of the FNCS IT Infrastructure systems. The resultant custom workflow will automate the business processes and save FNS time and money.</p>	<p>FNCS IT investment is in Operations and Maintenance (O&M). The agency's efforts related to future IT capabilities are scheduled to be completed in FY14. Please see the table below for Alfresco project milestones.</p>

FY 14 Milestones	Dates
Integration environment	1/31/2014
Pre-Production and Production environment configuration	03/19/2014 – 4/29/2014
Final 508 Compliance/Authorization completed	05/08/2014
eAuth Implementation	2/17/14 - 4/30/2014
ATO Go-live Date	4/30/2014
Assessment and Authorization (A&A)	3/19/2014 – 4/30/2014
Incorporate* SNAP Policy Wiki (SPW)	2/24/12 - 6/25/13
Incorporate* SNAP Workflow Information Management System (SWIM)	1/27/14 - 2/06/14
Incorporate* Retail Management Modernization (RMM)	12/17/13 - 4/4/14
Incorporate* Anti-Fraud Locator for Electronic Benefit Transfer Transactions (ALERT)	05/21/14 - 7/3/14
Incorporate* Store Tracking And Redemption System (STARS)	1/15/14
Incorporate* Historical Document Management (HDM)	07/04/14 - 08/04/14

**Efforts include requirements, design, development and testing of individual applications/systems.*

Food Safety

FSIS Public Health Information System (PHIS)

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
FSIS has scheduled an implementation of the PHIS Traceback Tool for integration of data within the USDA data warehouse.	<p>PHIS employs a shared first approach by consuming services from other applications (e.g. USDA authorization services, USDA e-authentication services, and e-certification from international partners).</p> <p>PHIS leverages consolidated data center infrastructure.</p> <p>PHIS employs the information centric, shared platform, customer centric, and security privacy Digital Strategy principles to</p>	<p>PHIS integrated and automated FSIS paper-based business processes often found to be inefficient, time-consuming and limiting into one comprehensive and fully automated data-driven inspection system.</p> <p>PHIS was upgraded to interface between FSIS systems for technology refresh to improve data sharing. In addition, PHIS implemented O&M processes and organizational changes to facilitate data sharing to</p>	<p>The PHIS system implemented performance and data base management updates to allow for additional users to come on line.</p> <p>PHIS 2.0 Release enables State PHIS functions.</p> <p>PHIS 2.1 Release enhanced the DisConnected Users (DCU) functionality.</p> <p>PHIS 3.0 Establishment Profiles questionnaires, Lap Sampling questionnaires, Import Foreign Equivalency Verification part of the SRT</p>

	<p>provide services to citizens and government organizations that consume food inspection services.</p> <p>ROI is measured through the Agency's Strategic Plan Goals, performance measures and annual performance plan. Incremental increases in ROI achieved through system releases every 6 months.</p>	<p>external stakeholders for improved tracking and trace back to food illness problems.</p> <p>In FY14, FSIS continues to develop and deploy functionality for exports information. Deployment is contingent on finalization of the Export Rule.</p>	<p>module and Lab Sampling Enhancement.</p> <p>PHIS 4.0 Export functionality.</p>
--	---	--	---

Public Health Data Communications Infrastructure (PHDCIS)

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>FSIS expects to continue funding the PHDCIS O&M services contract, telecommunication costs, hardware and software license renewals, and replacing end of life technologies.</p> <p>FSIS is currently exploring and implementing mobility and wireless technologies.</p>	<p>PHDCIS leverages telecommunication (network, video, and telephony) services from the USDA Network.</p> <p>PHDCIS uses USDA's consolidated Enterprise Data Centers and email collaboration services.</p> <p>FSIS will continue to review USDA's consolidated service offerings for efficiencies as they become available.</p>	<p>FSIS will continue to improve Business Processes related to the PHDCIS Helpdesk Customer Service response time to assist end users perform more efficiently the Mission Critical Needs of FSIS.</p>	<p>FSIS is currently deploying a laptop refresh based on the 4 year technology refresh cycle.</p> <p>FSIS is migrating from Windows XP to the Windows 7 desktop operating system.</p> <p>FSIS increased the security of its customer facing applications by implementing state-of-the-art firewall and network technology.</p>

Marketing and Regulatory Programs

Web-Based Supply Chain Management (WBSCM)

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>WBSCM is implementing a multisource; single-homed data repository with the capability to dynamically compile and</p>	<p>WBSCM will consolidate physical application servers into larger, more robust servers to reduce overall footprint resulting in a reduced infrastructure cost. Additionally, WBSCM is</p>	<p>The investment will decrease total duration for commodity surplus removal efforts and increase the level of data integrity and accessibility currently available to WBSCM users.</p>	<p>Over the next 5 years, WBSCM will scale out to approximately 15,000 stakeholders in the following organizations:</p> <ul style="list-style-type: none"> State distributing agencies (SDAs);

distribute data in multiple formats will increase operational efficiencies based on user specific needs.	moving low risk web servers and application servers further reducing infrastructure cost.		<ul style="list-style-type: none"> ○ State Agencies for Aging ○ State Departments of Agriculture ○ State Departments of Education ○ State Departments of Health/Human/Social Services • Recipient agencies (RAs); <ul style="list-style-type: none"> ○ School Food Authorities <ul style="list-style-type: none"> ▪ U.S. School Districts ▪ U.S. Schools <ul style="list-style-type: none"> ○ Senior Centers ○ Food Banks ○ Soup Kitchens ○ National Food Warehouse uses • Indian tribal organizations (ITOs); <ul style="list-style-type: none"> ○ Native American Tribes <p>In addition, WBSCM is planning the following milestones:</p> <p>Technical Upgrade. Target: FY14.</p> <p>Business Process Engineering Effort. Target: FY15.</p> <p>Data Reporting Strategy. Target: FY15.</p> <p>Functional Upgrade. Target: FY17.</p>
--	---	--	---

Animal Disease Traceability Information System

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
APHIS plans to update ADTIS functionality and migrate to a cloud environment.	ADTIS is already an important system for reducing duplicative IT. APHIS is used to support all APHIS IT systems that require premises or animal IDs.	APHIS plans to conduct operational analysis studies that will result in Business Process Improvements.	<i>No Information.</i>

APHIS Enterprise Infrastructure

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>AEI is moving to new technologies to reduce overall Telecom costs i.e. (Session Initiated Protocol – SIP). SIP allows APHIS to eliminate Primary Rate Interface (PRI) circuits used at each location. The voice traffic will then be run across the existing wide-area-network (WAN) circuits. As a result, APHIS is saving costs on over 135 PRI circuits across the agency.</p>	<p>Shared First:</p> <ul style="list-style-type: none"> APHIS has consolidated its mobile telecommunications contracts. APHIS has migrated its email to the USDA Outlook email. APHIS is in the process of moving its systems to an EDC. <p>Cloud First: AEI's Domino platform moved to NITC cloud service. APHIS plans to Sunset the Domino platform 01-2014. Oracle is currently under review for move to the NITC Cloud service.</p> <p>Digital Strategy: APHIS implemented Web Sphere's Portal to adhere to the President's Digital Strategy.</p> <p>AEI has a 12 year ROI compared to commercial provided solutions.</p>	<p>APHIS strives to increase AEI availability from 99.97% to 99.999%.</p>	<p>APHIS has consolidated its mobile telecommunications contracts.</p> <p>APHIS has migrated its email to the USDA Outlook email, and is in the process of moving its systems to an EDC.</p> <p>AEI's Domino platform moved to NITC cloud service. APHIS plans to Sunset the Domino platform 01-2014. APHIS is currently analyzing moving its Oracle infrastructure to the NITC Cloud service.</p> <p>APHIS implemented Web Sphere's Portal to adhere to the President's Digital Strategy.</p>

Natural Resources and Environment

USDA Land Public Safety Radio System (AgPRS)

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>LMR Mobile Apps Asset Management Ticket Management Remote Site Monitoring.</p> <p>Performance Monitoring Performance monitoring allows the service provider as well as the customer to know proactively.</p> <p>Tower/Shelter</p>	<p>LMR Mobile Apps Increase in system operation time and reliability Decrease in travel and overtime.</p> <p>Performance Monitoring Enables Remote Site Monitoring.</p> <p>Tower/Shelter</p>	<p>LMR Mobile Apps Operations: System Sustainment (Break/Fix) Field Employee: System Awareness</p> <p>Performance Monitoring Operations: System Sustainment (Break/Fix) Field Employee: System Awareness.</p>	<p>LMR Mobile Apps FY14 Application Pilot and proof of concept testing FY15 Regional level testing FY16 National level roll out.</p> <p>Performance Monitoring FY14 additional sites added. FY14 Discuss vendor</p>

<p>Initiative Communication Sites that is collaborative in construction and use to the extent possible.</p> <p>APCO P25 Digital Migration P25 capability enables multi agency collaboration.</p> <p>Law Enforcement Multi-band and AES Encryption.</p> <p>FirstNet/PSBN FirstNet is directed to "ensure the establishment of a nationwide, interoperable Public Safety Broadband Network."</p>	<p>Initiative Reduction in tower and shelter site fund requirement through partnering and sharing.</p> <p>APCO P25 Digital Migration Consolidation, single platform for all land mobile radio communications.</p> <p>Law Enforcement Multi-band and AES Encryption.</p> <p>FirstNet/PSBN Potential consolidation of all public safety responders nationally.</p>	<p>Tower/Shelter Initiative CIO Sustainment and Life Cycle Replacement.</p> <p>APCO P25 Digital Migration Operations: Smart system allows inventory mgmt., use analysis and low data transfer. Field Employee: provides multi-agency communication, greater capabilities and awareness.</p> <p>Law Enforcement Multi-band and AES Encryption.</p> <p>FirstNet/PSBN Administration, Research, Fire and Law Enforcement in the urban interface areas.</p>	<p>provision off the shelf.</p> <p>Tower/Shelter Initiative FY14 Develop master plan process. FY14 Provide partner before build governance proposal.</p> <p>APCO P25 Digital Migration FY14 Create P25 migration guide. FY15 Pilot test full migration in a particular geography.</p> <p>Law Enforcement Multi-band and AES Encryption.</p> <p>FirstNet/PSBN FS is partnering with DHS and the Emergency Communication Preparedness Center (ECPC) on this initiative.</p>
--	--	---	---

Forest Service Computer Base (FSCB)

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
Virtual Data Center	The Forest Service needs technology-agnostic applications.	User applications are free of any dependence on specific hardware, operating systems, or location.	NRM and Forest Service KC data centers will be consolidated in the USDA NITC data center.
Virtual Voice Services	Consolidation of FS voice services with USDA voice services.	Cost savings will result from consolidation of services.	Planning meeting January 2014 Strategy for consolidation being refined 2 nd quarter 2014.
Virtual Computing Capability	Forest Service Users need mobile information resource support for field activities.	Reduce dependence on outdated and expensive-to-maintain computing devices.	Mobile strategy documented 4 th quarter 2013.

Resource Ordering and Status System (ROSS)

ROSS supports several of the high priority action items in the FS Action Plan. These include safety, risk management, cultural transformation, and the Landscape Conservation Framework.

- **Safety**: ROSS enables resources to be mobilized more rapidly than using paper based manual processes. This provides resources to incidents faster often improving the safety of our citizens and fire fighters while reducing the impact to public lands. ROSS more efficiently manages resources and lets the user community know where resources are located.
- **Risk Management**: ROSS contributes to risk management capacities and skills by providing systems that automate processes. ROSS helps users manage data about incidents to help the interagency community make informed decisions (e.g., ROSS helps users see all the resources and track them). Historical information is used to derive trends to reduce risks for future incidents.
- **Cultural Transformation**: The Cohesive Wildfire Management Strategy is the beginning of a significant cultural transformation in wildland fire management. ROSS directly supports the vision articulated in the Strategy to: “safely and effectively extinguish fire, when needed; use fire where allowable, manage our natural resources; and as a Nation, live with wildland fire.” ROSS also supports one of three primary factors in the Strategy: “responding to wildfires.”
- **Landscape Conservation Framework**: ROSS supports this via the inclusion of the next phase of the Cohesive Wildfire Management Strategy into the Landscape Conservation Framework.

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
ROSS is an interagency software application which will link approximately 400 interagency wildland incident dispatch offices to share resource and incident status information, provide a means to order resources, and provide for order confirmation.	Shared Services: Next-Gen ROSS offers the perfect opportunity to share services. Consolidated identity management Shared infrastructure Business intelligence tools Capacity management	Cloud Computing: The current ROSS system has issues with performance during peak fire season. It is believed that moving to a Cloud infrastructure for Next-Gen ROSS would be ideal. ROSS is working with the host General Support system, Fire National Enterprise Support System (NESS) to explore cloud alternatives.	Wait until closer to deployment date so that chosen technology isn't obsolete.

Conservation Delivery Streamlining Initiative (CDSI)

In 2015, NRCS will continue to improve technical assistance delivery to agricultural producers with continued development of key elements of the Conservation Delivery Streamlining Initiative (CDSI). The 2015 Budget includes a total of \$15.7 million for CDSI. New capabilities under CDSI will increase flexibility by allowing NRCS staff to

perform the administrative functions of conservation work from the field rather than the office. Full implementation of CDSI will result in faster service for customers and streamlined business processes for planners. NRCS estimates that when fully implemented it will allow the Agency to refocus over 1,500 staff years on customer service and improved conservation assistance. NRCS is in the process of implementing CDSI, which will improve data quality. These efforts include updating processes for geospatial data entry for conservation activities as well as requirements for consistency.

CDSI will streamline business processes across the NRCS lines of business in order to achieve the following benefits:

1. Simplify Conservation Delivery – make conservation easier for customers and employees.
2. Streamline Business Processes – increase efficiency and be integrated across NRCS business lines.
3. Ensure Science-based Assistance – continue delivery of technically-sound products and services.

These CDSI objectives will result in NRCS field staff spending more time in the field working with clients developing science-based conservation plans and less time on administrative tasks associated with program delivery. Additionally, NRCS clients will have the ability to perform “on-demand” tasks online, such as requesting assistance, reviewing conservation plans or approving contractual documents.

When implemented, CDSI will leverage three browser-based user interface views into a common middle-tier business logic/workflow layer, along with a supplementary install of ESRI geospatial desktop software as needed by NRCS field planners. These views include Client Gateway, Conservation Desktop with technical and financial functionality, and a flexible Mobile Planning Tool with integrated resource inventory and decision support components. It will provide critical IT functionality to implement a redesigned business model, processes and the ability for users the ability to have the same experience in the office as well as out of the office, allowing them to work with or without connection (it should be noted that there may be a reduced set of functionality available while offline). The results will include a much more science-based conservation planning and application delivery system, a tight alignment between NRCS’ technical and financial assistance processes, the elimination of duplicate data entry between systems, expedited financial assistance contracting through streamlined and nationally consistent processes. Mobile Planning Tool technology is a critical component, because it allows NRCS’ 8000 planners to efficiently conduct their field-based processes without the requirement to duplicate steps and data entry back in an office setting. Mobile Planning Tool also reduces the number of trips to the field by NRCS, as well as office visits by the clients.

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
Please see description above.	As the Conservation Delivery Streamlining Initiative (CDSI) comes online over several fiscal years, initially five legacy systems will be replaced or retired. As functions currently implemented via legacy applications are deployed under the CDSI Conservation Desktop, those legacy applications will be deprecated and decommissioned.	New business processes that replace existing ones may also result in retirement of legacy applications.	CG v1 Deployment Complete Dec, 2014 CG v2 Deployment Complete Sep, 2015 CD v2 Deployment Complete Nov, 2015 MP v1 Deployment Complete Nov, 2015 CG v3 Deployment Complete Sep, 2016 MP v2 Deployment Complete Jun, 2017 CD v3 Deployment Complete Nov, 2017 CDSI O&M Complete Sep, 2022

Research, Education, and Economics

The Research, Education, and Economics Mission Area does not oversee any major investments, and is not reporting a future architecture at this time; however, REE is focused on developing systems and data management tools that will support the USDA and its stakeholders and have a positive impact on the public health and the agricultural economy.

As a changing climate drives increases of temperature, atmospheric carbon dioxide, and predictions of extreme weather events, one of the priorities within the Research, Education, and Economics (REE) mission area is to better understand the effects of climate change and develop adaptive strategies and technologies to address its impacts. This priority, which is carried out through Agricultural Research Service (ARS), will address the risk of climate change to agriculture by developing more climate resilient agriculture production systems. Specifically, the agency will take a three-pronged approach to this issue:

1. Develop decision support systems and data management tools that enable users to compare production systems under various climate change scenarios;
2. Build new knowledge on the exposure and sensitivities of agroecosystems to climate change; and

3. Develop management technologies and strategies to enhance sustainability, including more precise delivery of agricultural inputs and more resilient plant varieties and animal breeds.

ARS will leverage the Long Term Agroecosystem Research Network and investments in cyber infrastructure for big data to expand collaboration, accelerate the development and access to new knowledge, and deploy climate adaptation technology to the field. Additionally, ARS will engage the network of USDA Regional Climate Hubs to accelerate region-specific research on climate effects and ensure the transfer and adaptation of new technology.

Rural Development

Comprehensive Loan Program (CLP)

Future IT Capabilities	Reduction and/or Consolidation of Duplicative IT	Areas of Business Process Improvement	Major Milestones
<p>This investment will modernize systems for stream-lined, automated processes for the end user:</p> <ul style="list-style-type: none"> • System Modernization – This effort includes the modernization of existing RD systems, creation of a centralized loan origination system/process, and modernizing the security infrastructure by concentrating on access and system intrusion. • Core Services Modernization - This effort includes the modernization of the Tabular Data and Geospatial Warehouse, creating a single port of entry web portal for systems and establishing Service Oriented Architecture (SOA) services accessible to all systems. • System Retirement - This effort includes the retirement of legacy 	<p>CLP helps reduce duplicative IT by the following efforts:</p> <ul style="list-style-type: none"> • Consolidation of like processes such as cash management, loan eligibility rules engine, and loan document repository into a shared services platform; • Integration to the FMMI platform; and <p>Sharing of common systems as needed with Farm Service Agency, such as the Guaranteed Loan System.</p>	<p>CLP assists the mission owners by improving the following end-user processes:</p> <ul style="list-style-type: none"> • Develop an Automated Loan Application document intake and processing system for all loan programs utilizing a common framework; • Develop an Enterprise Cash Management portal for all RD cash receipts and disbursements; • Develop mobile applications such as the Multi-Family Housing inspection application; • Develop a Common Customer entry portal for all share services and systems; and • Develop an Electronic Case File for the loan application and servicing systems to serve as a common document repository. 	<p>The CLP Major Milestones are currently planned to be completed:</p> <ul style="list-style-type: none"> • System Modernization - Complete by 9/29/2017 • Core Services Modernization - Complete by 9/29/2016 • Legacy Systems Retirement - Complete by 12/29/2017

mainframe systems that include the Automated Multi-Family Housing Accounting System (AMAS), RUS-Legacy and the Program Loan Accounting System.			
--	--	--	--

Transition Plan

The previous sections provided a holistic overview of USDA's Current and Future Architectures, and accounted for all of the Major Investment's within the Department's recently re-aligned IT portfolio, which resulted in the reduction of the USDA major IT portfolio from 38 major investments in FY13 to 24 major investments for FY14. The following section addresses USDA's Transition Plans - the activities needed to yield the desired future state, according to USDA priorities, dependencies, and constraints. These plans form the basis for IT modernization within the USDA and its Agencies, driving both investment and implementation of systems and technologies that will transform USDA's business. The transition activities identified in this Roadmap will become the plans USDA implements to achieve IT modernization.

USDA places particular emphasis on eleven (11) high priority modernization initiatives for FY 2014:

1. Modernize and Innovate the Delivery of Agricultural Systems (MIDAS)
2. Conservation Delivery Streamlining Initiative (CDSI)
3. Comprehensive Loan Program (CLP)
4. Financial Management Modernization Initiative (FMMI)
5. Food Safety Modernization - Public Health Information System (PHIS)
6. RMA-13 Emerging Information Technology Architecture (EITA)
7. Web Based Supply Chain Management (WBSCM)
8. Animal Disease Traceability Information System (ADTIS)
9. Resource Ordering Status System (ROSS)
10. Homeland Security Presidential Directive-12 (HSPD-12)
11. Internet Protocol version 6 (IPv6)

These high priority modernization initiatives ensure a line of sight across strategic planning, budget planning, and CPIC. Additionally, they identify opportunities for intra-departmental collaboration.

USDA's high priority modernization initiatives are revolutionizing the way the USDA interacts with other government agencies, businesses, and citizens. By optimizing information systems and content for mobile use, using open data principles and web Application Programming Interfaces (APIs), USDA strives to build capacity for public service innovation, and encourage creative consumption and application of USDA's extensive resources, including high-value data, services or systems, and content. USDA will continue to modernize information systems to maximize interoperability and information accessibility by establishing a baseline portfolio, and identifying high-value and priority data sets, systems, and services. Furthermore, USDA will engage with internal and external customers to gather feedback and better prioritize information system modernization.

The Transition Plan section of the Roadmap presents USDA's High-Priority Modernization Initiatives (HPMIs) and High-Priority Administrative Initiatives (HPAIs). Although many of these initiatives are also covered under the Current and Future Architecture sections of the Agency to which they belong, additional information for these investments is provided in the Transition Plan section of the Roadmap. The transition activities identified in the section of the Roadmap define and sequence the activities needed to yield the Department's desired future state and form the basis for the Department's greater IT modernization efforts, driving its investment in and implementation strategies for new services, technologies, and systems.

The Transition Plan presents the following subsections for each High Priority Initiative:

- **Description:** The Description section provides a general overview of the investment. Unlike the Current Architecture and Future Architecture sections, which present a tabular layout, the Transition Plan descriptions are presented in paragraph format.
- **Transition Schedule and Milestones:** The Transition Schedule and Milestones section provides a high-level, five year overview of the planned activities for the initiative. Agencies that oversee a High Priority Initiative have provided schedules that show dependencies between major activities and/or milestones. For the purposes of the Enterprise Roadmap, these schedules have been amended to show only high-level tasks and dependencies.

The timelines for USDA's modernization and administration initiatives are provided on the pages that follow.

High Priority Modernization Plans

Modernize and Innovate the Delivery of Agricultural Systems (MIDAS) Timeline

FSA is the business owner of Modernize and Innovate the Delivery of Agricultural Systems (MIDAS) initiative. This initiative will transform FSA's delivery of Farm Program benefits, on behalf of the Commodity Credit Corporation (CCC).

Description

MIDAS is using a phased-deployment plan, starting with the management of farming operations data common to all programs and followed by the establishment of the core grant management processes. Iterative releases will deliver specific farm programs capabilities. The order in which programs are to be released will be determined based on criteria including program commonality, annual application deadlines, and payment cycles. This modular approach allows USDA to be responsive to its business cycle and to roll out functionality in a way that supports both field office and producer needs.

The MIDAS initiative will:

- Reengineer business processes fostering commonality.
- Centralize data assets to support all farm programs.
- Eliminate program specific duplication of functionality and non-integrated, distributed data that exists between farm program software applications.
- Accomplish increased compliance with improved IT security.

FSA will install commitment-based accounting practices (e.g., obligations, commitments, outlays, funds control) to upgrade both the program and financial management business practices of the CCC. As they are transitioned to the new system, FSA's Farm Programs will become compliant with federal financial accounting standards, such as, the Federal Information Security Management Act (FISMA) and the Federal Managers Financial Integrity Act (FMFIA). The MIDAS initiative is aligned with the OCFO's FMFI.

MIDAS Release 1 will establish a platform to support core business processes common across farm programs, and begin the phased transition of prioritized programs to that

new platform. This will help move FSA away from program-specific systems and towards a repeatable, horizontal process-based approach to program delivery. Existing functionality in FSA's portfolio of Java web applications and web services will be leveraged and reused where practical. Functions which cannot be easily or economically implemented in the ERP will be delivered as services in the custom Java portfolio, as determined by a risk-adjusted cost/benefit analysis.

The solution will be designed to identify and establish a set of common processes and data that support all farm programs, such as the basic lifecycle processes of a benefits application or the data related to producer, land and acreage reporting; and then implement them as a common platform.

The MIDAS initiative finished its Release 1 Deployment 1.0 and Deployment 1.1 "Blueprint" phases in FY 2012. These design phases arrived at a set of common processes and master data. With blueprinting completed, the initiative has passed into the "Realization" phase. The overall purposes of realization are to:

- Build and test a complete business and system environment.
- Develop training material and end-user documentation.
- Obtain business approval.

Several overlapping deployment phases will add functionality and programs incrementally.

Transition Schedule and Milestones

None Provided for MIDAS.

Conservation Delivery Streamlining Initiative (CDSI)

The NRCS is developing IT services for the Conservation Delivery Streamlining Initiative (CDSI). In support of this initiative, NRCS outlined a Roadmap of development and discovery activities for updating current conservation planning techniques, technical assistance delivery systems, and business applications across the agency.

Description

The CDSI will be the main driver for NRCS IT software development over the next five years. The CDSI has identified three over-arching objectives that form the framework for developing the next generation of IT applications:

- Simplify conservation delivery.
- Streamline business processes.
- Ensure science-based technical assistance.

The following summarizes the planned IT response to the CDSI in terms of how the new IT approaches and application architecture will save time, reduce effort, and optimize costs:

- Define, streamline, and integrate formalized conservation assistance processes across Agency business lines.
- Prioritize and deploy IT that effectively supports and aligns with the delivery of conservation assistance.
- Provide field technical staff with natural resource science and technology focused to support conservation planning and application.
- Implement programs through alternative staffing and delivery approaches designed around more efficient business processes.
- Establish tools and processes for interacting with clients that are resource-centric, enhance customer service, and increase NRCS' efficiency.

The CDSI, initiated in April 2011, will provide conservation desktop technical assistance and financial assistance, a client gateway to improve data access, and a mobile planner providing resource inventory and decision support tools to support environmental compliance, conservation effects, etc.

Transition Timeline and Milestones

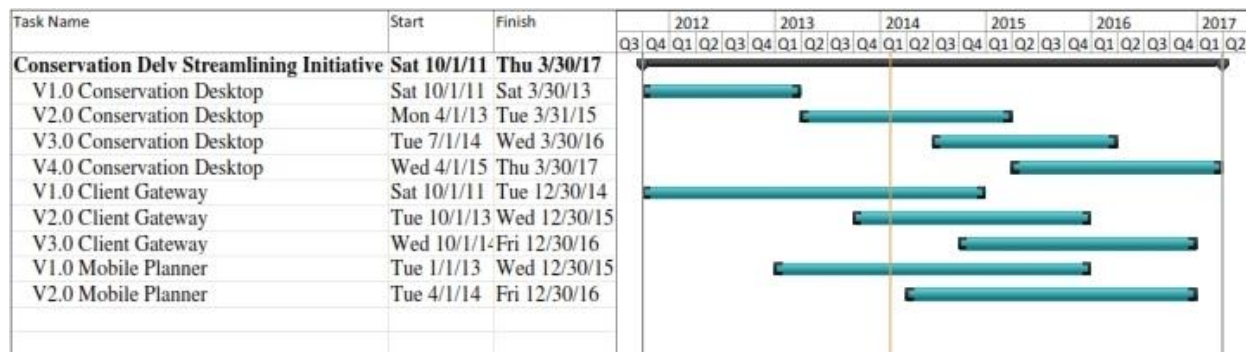


Figure 12: Conservation Delivery Streamlining Initiative Timeline

Comprehensive Loan Program

As a primary provider of loans and grants for rural Americans, Rural Development (RD) is sponsoring the Comprehensive Loan Program (CLP) initiative to meet the challenges of a rapidly changing environment.

Description

RD continues to seek opportunities to operate more efficiently through improved and shared platforms; to better understand the needs of internal and external customers; and to equip its IT organization with the information and agility to effectively respond to the requirements of its business stakeholders. The current challenges for RD include:

- Reduce long development timelines and legacy system limitations that make it difficult to rapidly support new and changing programs.
- Improve agility for coding of business rules and logic that can be used across systems and loan programs.
- Improve transparency in portfolio performance for better financial reporting and investment management.
- Increase business efficiencies by reducing paper-based processes and the number of processing hand-offs.
- Increase system integrations that reduce stakeholder input of data into multiple locations.
- Improve automation support for field office staff to increase productivity and customer-facing activities.

Transition Schedule and Milestones

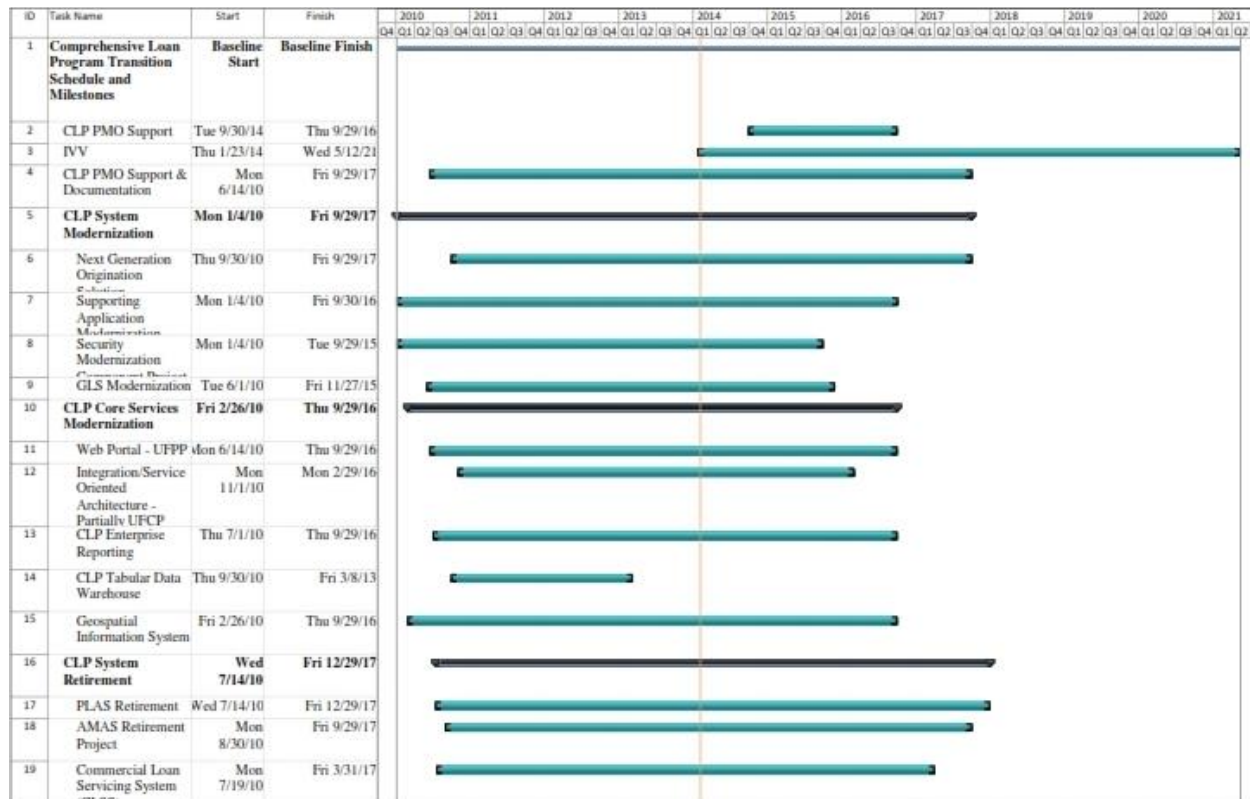


Figure 13: Comprehensive Loan Program Timeline

Financial Management Modernization Initiative (FMFI)

The Office of the Chief Financial Officer (OCFO) is the business owner of the Financial Management Modernization Initiative (FMFI). The primary objective of the USDA Financial Management Modernization Initiative is to improve financial management performance by providing USDA agencies with a modern, efficient core financial management system that complies with Federal accounting and systems standards.

In FMFI, Foreign Agricultural Service (FAS) has partnered with OCFO to extend the Enterprise Resource Planning (ERP) implementation to include a comprehensive, integrated solution that provides financial assistance programs to citizens and businesses. The solution standardizes and supports the end-to-end process of planning, selection, management, and evaluation of Grant Programs with a single integrated platform. This single integrated solution can support all program types eliminating data redundancy and inefficiencies

Description

FMMI enables agency-wide implementation of expanded functional capability, full integration of critical system components, continued business process reengineering, and continued high-quality production and customer support. FMMI also ensures better integration of program, financial, and budgetary information to support more efficient and effective management of USDA's mission and programs aligned to established performance goals and objectives.

FMMI will replace the mainframe-based Foundation Financial Information System (FFIS), within the Corporate Financial Management System (CFMS), with an ERP solution. FMMI will enable migrating the current distributed, multi-instance mainframe system to a federally compliant, consolidated, single-instance web-based system.

FMMI is currently operational in all USDA Department Staff Offices and the Office of the Inspector General (OIG), as well as, the following agencies: Foreign Agricultural Service (FAS), Agricultural Research Service (ARS), Economics Research Service (ERS), National Agricultural Statistics Service (NASS), National Institute of Food and Agriculture (NIFA), Food Safety and Inspection Service (FSIS) and NRCS. The Forest Service (FS) was deployed in 2012. Food and Nutrition Service (FNS) Integrated Program Accounting System (IPAS) will be integrated into FMMI around 2015.

Transition Schedule and Milestones

None Provided for FMML.

RMA-13 Emerging Information Technology Architecture Timeline

The Risk Management Agency (RMA)-13 Emerging Information Technology Architecture initiative supports the replacement of current legacy systems that are at or past end-of-life cycle and unable to meet the demands of the current risk management program.

Description

This initiative supports the strategic plan of USDA's Risk Management Agency (RMA) by applying electronic commerce technology to integrate RMA and its insurance delivery partners into one electronic community that supports day-to-day operations, and provides a source of ongoing and reliable business intelligence for managing and continuously improving all aspects of the program.

The goal is to strategically align IT to support USDA core business processes that in turn successfully support its mission, strategic goals, and objectives. Modernization drivers are those factors that create a compelling case to drive change and impact the business performance. The following list identifies some of RMA's primary modernization drivers:

- Improve services to business partners and citizens.
- Respond to legislative changes and mandates.
- Respond to increased demand for services amid reduced budgetary resources.
- Fulfill information security requirements.
- Collaborate with relevant cross-agency initiatives; reduce fraud, waste, and abuse.

The RMA-13 Emerging Information Technology Architecture initiative is following a transition strategy to move RMA to utilizing Commercial-Off-the-Shelf (COTS) tools for enterprise reporting and information sharing, and geospatial services.

RMA's EITA initiative is guided by the following design principles:

- Enterprise web-centric applications.
- Common look and feel.
- Shared and common services utilizing a common infrastructure.

RMA-13 utilizes Shared First services procured and managed/monitored through RMA-04 IMST investment. Specifically RMA-13 utilizes SAS and GIS for multiple business applications. RMA-13 also aligns with Cloud First objectives by using Microsoft communication and collaboration cloud services provided by the USDA OCIO. These services includes: Exchange, SharePoint, and Lync. RMA is migrating the internal-facing portions of two SharePoint-based EITA applications, CARS and eRecords Management System, to the USDA cloud service. RMA has developed the Escrow application using a platform-as-a-service development platform in a private cloud.

RAM is currently in the process of adding Microsoft Azure services to our MS VLA to store file server data used by the business applications that have file based interfaces. In 2014, we will move virtual servers to a cloud service, following completion of an analysis of alternatives for cloud service providers.

Transition Schedule and Milestones

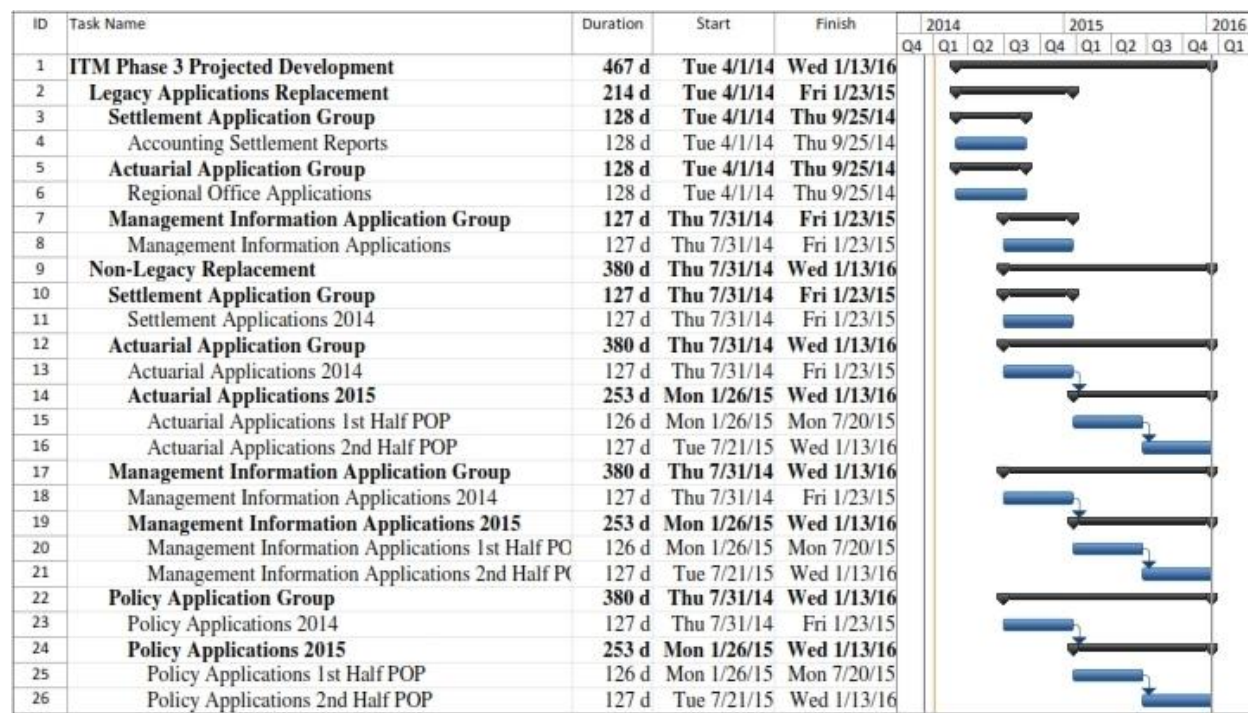


Figure 14: Emerging Information Technology Architecture Timeline

Public Health Information System (PHIS) - Food Safety Modernization

The Food Safety Modernization initiative supports an effective food safety system that collects, assesses, and responds to hazards and risks.

Description

FSIS is the business owner of this initiative. This initiative will facilitate the replacement of current legacy systems that are at or past end-of-life. The Public Health Information System (PHIS) investment is the focus of the Food Safety Modernization initiative which consists of 15 key applications and supporting software, which directly affects FSIS' ability to achieve improvements in mission performance, management decision-making, and operational efficiencies.

PHIS and the other FSIS applications/systems are primarily used to support mission critical FSIS business functions such as inspection, import/export activities, surveillance, auditing, and enforcement, and have the same primary Business Reference Model (BRM) classification. PHIS moves towards a Service Oriented Architecture (SOA) and provides a single source for mission critical data, uses predictive models to analyze real time data from FSIS and other Federal, state, and local agencies, and uses a common web-based user interface.

FSIS goals for PHIS include:

- Leverage technology to automate procedures throughout agency programs.
- Share information with other government agencies (DHS, FDA, and CDC), and within USDA (Animal and Plant Health Inspection Service (APHIS) and Agricultural Marketing Service (AMS)) and with international trading partners (Netherlands, Australia, and New Zealand).
- Continue to eliminate duplicate efforts for various system functions, data, and integration points.
- Establish Electronic Export Certification Eligibility to Foreign Countries.
- Modernize the State Inspection System to PHIS.

The PHIS and the other FSIS applications/systems help close agency performance gaps by providing more effective and cost efficient services to better detect and prevent food safety threats. For example, PHIS and its support systems will:

-
- Provide an analytical tool and data to improve the agency's ability to detect the introduction of intentional/unintentional food borne threats.
 - Enable near real-time data collection for reporting and analysis.
 - Provide the ability to collect information to assist FSIS with trace back and trace forward investigations for identifying product disposition and/or the origins of hazards.
 - Provide the ability to collaborate with DHS, FDA, international trading partners and with other USDA agencies to improve mission critical performance in inspections, surveillance, tracking, auditing, and enforcement.

As part of its consolidation efforts, FSIS plans to incorporate the following improvements:

- Service Oriented Architecture: This approach includes development of a common application framework for FSIS to standardize applications across the enterprise supporting different mission needs.
- Technology Modernization: This effort describes FSIS initiatives to modernize legacy systems consolidating them under new technologies supporting an enterprise-wide standard.
- Business Intelligence: To further the FSIS IT investment goals for PHIS, the Agency has strengthened definitive data sharing agreements with other internal partner agencies (i.e., AMS, National Agricultural Statistics Service (NASS) and Agricultural Research Service (ARS)) and the CDC to support policy development and research activities.
- Application Consolidation: Within this EA initiative, FSIS is in the process of consolidating numerous legacy applications on a wide variety of platforms into fewer, more robust applications.

Web Based Supply Chain Management (WBSCM) Timeline

AMS leads the Supply Chain Management initiative, which is supported by the Web Based Supply Chain Management (WBSCM) system.

Description

WBSCM is a modern, integrated Internet-based commodity acquisition, distribution, and tracking system, built on commercial software, that was implemented by USDA agencies and United States Agency for International Development (USAID) to replace the aging Processed Commodity Inventory Management System (PCIMS). WBSCM leverages commercial and government best practices by using COTS, also being utilized by USDA's FMMI and the MIDAS initiative. The Supply Chain Management initiative provides the opportunity to streamline all processes into one integrated system; providing efficiencies.

This integrated system reduces time needed for monthly and yearly account close-out. Standard financial processes and structures allow all participating agencies to apply consistent financial management practices to business activities. These standard structures provide flexibility, creating new accounting categories to meet tracking and reporting requirements for special programs or situations such as the American Recovery and Reinvestment Act (ARRA) or the Farm Bill. WBSCM allows quick reaction to supply and demand changes resulting in better forecasting and planning in the value chain, yielding increased productivity and lower operating costs.

In Fiscal Year 2013, WBSCM directly supported the order, procurement and delivery of 8,435,646,758 pounds of farm food commodities at a cost of \$2,902,689,302 to the following programs: Commodity Supplemental Food Program (CSFP), The Emergency Food Assistance Program (TEFAP), Food Assistance in Disaster Situations, Food Distribution Program on Indian Reservations (FDPIR), National School Lunch Program (NSLP), School Breakfast Program, Summer Food Service Program (SFSP), Child and Adult Care Food Program (CACFP), Titles II and III of Public Law 480, Food for Progress, Section 416(b) of the Agriculture Act of 1949, McGovern-Dole International Food for Education and Child Nutrition Program and the United Nation's World Food Programme. (NOTE: Reporting commodities in pounds.)

Transition Schedule and Milestones



Figure 15: Web Based Supply Chain Management (WBSCM) Timeline

Animal Disease Traceability Information System

Description

The Animal Disease Traceability Information System (ADTIS) [formerly NAIS] supports animal disease traceability activities related to animal identification, movements and locations where animals are managed. It is implemented by the USDA and State agencies in cooperation with industry - to enable timely trace back of the movement of diseased or exposed animal. Animal disease traceability helps to ensure rapid disease containment and maximum protection of America s animals.

ADTIS needs to move to a cloud environment to keep up with USDA enterprise architecture goals. Additional funding will be required to revamp ADTIS to be fully cloud compliant.

Transition Schedule and Milestones

None Provided for ADTIS.

Resource Ordering and Status System

Description

The Resource Ordering and Status System (ROSS) mobilizes and shows status of resources for disaster response.

The objective of the planned Technical Refresh of ROSS is to replace obsolete technical components. Technical refresh is necessary because ROSS is built on older technology that causes performance issues and risks technological obsolescence.

Sample technical refresh activities include:

- 1) Making ROSS a Web based application that can work on multiple browsers and different devices; eliminating the need for users to download a ROSS client.
- 2) Working with the Fire National Enterprise Support System team to move to a cloud infrastructure.
- 3) Providing full visibility of deployed resources, including State and Canadian-owned, that were dispatched outside of Federal channels.
- 4) Replacing manually entered contract data with an interface to FS contracting systems to ensure best value and lessen vendor lawsuits.
- 5) Reducing the architectural complexity and maintenance costs.

For the DME portion, ROSS needs to respond to critical business needs to support interagency wildland fire and all hazard business communities. Example improvements include:

- 1) Providing geospatial display, providing visual context to the closest and most effective resource to protect life and property.
- 2) Providing mobile functionality for self-stat using of resources' availability.
- 3) Providing "Safety Checklists" to help users ensure safety standards are met.

Transition Schedule and Milestones

None Provided for ROSS.

Homeland Security Presidential Directive-12 Timeline

Description

HSPD-12 was issued on August 12, 2004, by President George W. Bush. HSPD-12 calls for a mandatory, government-wide standard for secure and reliable forms of identification (ID) issued by the Federal government to its employees and employees of federal contractors for access to federally-controlled facilities and networks. Based upon this directive, the National Institute for Standards and Technology (NIST) developed Federal Information Processing Standards Publication (FIPS Pub) 201 including a description of the minimum requirements for Federal personal identification verification (PIV) system. USDA's Homeland Security Presidential Directive 12 compliant ID is called the LincPass, as it is designed to link a person's identity to an ID credential and the credential to a person's ability to physically and logically access federally controlled buildings and information systems, respectively.

The LincPass is used not only for identification purposes, but also for access to both federal computer systems (Logical Access Computer System (LACS) and federal facilities (Physical Access Control System (PACS)). The LincPass issuance and credentialing process utilize the General Services Administration (GSA) Managed Service Offices (MSO) Shared Services solution called USAccess. The LincPass issuance process is managed by USDA Office of Homeland Security and Emergency Coordination. Issuing a LincPass is a multi-step process involving several Homeland Security Presidential Directive 12 role holders in addition to the LincPass applicant.

USDA is making progress toward meeting OMB and its own goals for physical and logical access control. Since FY2008, USDA has used GSA's HSPD 12 PIV issuance services to provide cards for its staff. USDA was the first Federal Agency to implement a connection between its authoritative systems and the HSPD-12 service to synchronize digital identity data. This connection was improved and augmented with the implementation of the Enterprise Entitlement Management System (EEMS) project in FY2012. USDA has implemented the interface between GSA's HSPD-12 US Access system and Office of Personnel Management (OPM) to allow for immediate submission of fingerprints captured at PIV enrollment stations.

USDA OCIO has issued multiple memorandums including October 6, 2010 entitled “Preparing to Implement Identity, Credential, and Access Management (ICAM) as Directed by the Office of Management and Budget (OMB)” and a follow up memorandum dated March 7, 2011. The memorandums provide deadlines to USDA’s mission areas and agencies to meet ICAM-related milestones. USDA also issued policy mandating the use of the LincPass in Departmental Regulation (DR) 3170-001 and DR 3640-001. USDA is now implementing aggressive but realistic plans for PIV compliance and interoperability initiatives. Implementation of these initiatives at USDA must proceed in a manner that supports USDA business units and achieves OMB expectations.

More specifically, these are the goals for FY2014 Identity and Access Management Initiatives:

- Complete EEMS connections to agency Active Directories connecting to the USDA Enterprise Active Directory.
- Complete agency web application migrations to new infrastructure in the USDA Enterprise Data Center.
- Complete decommissioning legacy infrastructure.
- Complete ICAM as a service.
- Complete FCCX pilot.
- Collaborate with agencies and within OCIO to identify and implement compliant two factor logical access control mechanisms for mobile devices and as a backup for workstation access.
- Collaborate with agencies and within OCIO to meet 80% target for logical access using PIV cards (LincPass).

Future Goals: Full compliance with HSPD-12 and FIPS 201. ICAM as a Service (Inter-Department interoperability) allowing other federal Department users to access authorized USDA applications using their own credentials. Ability to accept authorized commercially issued credentials from members of the public doing business with USDA. Reduce the backlog of investigations and move requirements for submission of required documentation for investigations to a pre-hire requirement. Start date of employment contingent upon submission of a completed package to Personnel Security.

Transition Schedule and Milestones

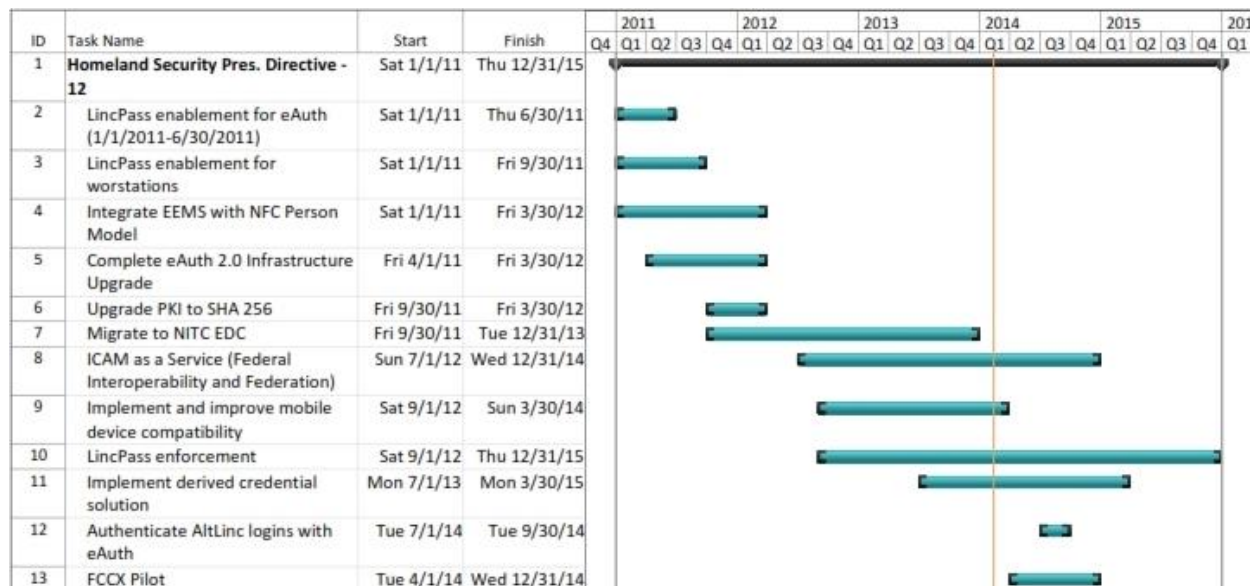


Figure 16: Homeland Security Presidential Directive-12 (HSPD-12) Timeline

Internet Protocol version 6 (IPv6)

Description

In March 2008, the OCIO completed Phase 1 of the Internet Protocol Version 6 Implementation Project by demonstrating Internet Protocol Version 6 compliance with OMB memorandum (M-05-22). The memorandum stated that by June 2008, all agencies' infrastructure (network backbones) must be Internet Protocol Version 6 compliant and agency networks must interface with this infrastructure. In order to fulfill this OMB request, OCIO performed testing to demonstrate performance of the following functions, without compromising Internet Protocol version 4 (IPv4) capabilities or network security:

- Transmit Internet Protocol Version 6 traffic from an external network, through the Core, to the Access and Distribution networks.
- Transmit Internet Protocol Version 6 traffic from an Access or Distribution network, through the Core, out to an external network.
- Transmit Internet Protocol Version 6 traffic from an Access or Distribution network, through the Core to another Access or Distribution network (or another node on the same Access or Distribution network).

Phase II – September 2012 OMB Mandate (in progress)

In response to the September 28, 2010 memorandum from the OMB regarding the federal government's commitment to the operational deployment and use of Internet Protocol Version 6 (IPv6), USDA's OCIO is working to facilitate timely and effective adoption of Internet Protocol Version 6 by planning and executing against the following requirements;

- Ensure that public/external facing servers and services (e.g. web, email, Domain Name System (DNS), Internet Service Provider (ISP) services, etc.) operationally use native Internet Protocol Version 6 by the end of FY 2012.
- Ensure that internal client applications communicate with public Internet servers and support enterprise networks to operationally use native Internet Protocol Version 6 by the end of FY 2014.
- Designate an Internet Protocol Version 6 transition manager to serve as the person responsible for leading the agency's Internet Protocol Version 6 transition activities, and liaison with the wider Federal Internet Protocol Version 6 effort as necessary.
- Ensure that agency procurements of networked IT comply with the Federal Acquisition Regulation (FAR) requirements for use of the United States Government version 6 (USGv6) Profile and Test program for the completeness and quality of their Internet Protocol Version 6 capabilities.

In 2011, the OCIO began meeting OMB mandates by designating an Internet Protocol Version 6 transition manager to lead transition implementation activities:

- Defined functional organization structure and updated charter for the Executive Steering Committee to establish Agency Internet Protocol Version 6 leads. Also developed charters, rosters and meeting schedules for the Internet Protocol Version 6 Steering Committee, Technical and Policy Working Groups.
- Developed an Internet Protocol Version 6 Intranet site for cataloging USDA and Federal Internet Protocol Version 6 documents from the Federal Internet Protocol Version 6 Interagency Working Group.
- Established a tool for gathering and reporting on the inventory of USDA public facing servers and services for each agency utilizing the EA Repository.
- Compiled inventory roll -up of all USDA External/Public Facing Servers and Services, Email and DNS. Validated through Internet Protocol Version 6 Agency Leads and submitted to OMB as initial inventory in accordance with the 2012 Mandate.

-
- Collaborated with outside federal agencies (Department of Transportation (DOT), Department of Interior (DOI), and Veterans Administration (VA)) to exchange information and experiences with varying Internet Protocol Version 6 transition methods including NATing, Protocol Translators, Tunneling and Dual Stack.
 - Worked with American Telephone & Telegraph (AT&T) to develop initial Internet Protocol Version 6 transition strategy and implementation steps.
 - Coordinated Internet Protocol Version 6 transition steps and dependencies with external stakeholders, including Managed Network Services (MNS) provider, AT&T, and the USDA enterprise email service provider, Microsoft.
 - Communicated strategies and project plans with internal stakeholders through functional organizational structure including Steering Committee, Technical Working Groups and EA groups.
 - Redesigned USDA Internet Protocol Version 6 address plan after procuring a new and larger Internet Protocol Version 6 address space from the American Registry for Internet Numbers (ARIN).

In first quarter 2013, USDA will complete the Networx Transition initiative. This will enable Internet Protocol Version 6 capability on the USDA backbone network. The Department continues to work with agencies on development of their plans for implementing Internet Protocol Version 6 network transport for all USDA agency connections in support of the September 30, 2012 OMB mandate utilizing the new Departmental Internet Protocol Version 6 address allocations. In parallel, USDA agencies are preparing and executing transition plans for the network services provided by them, such as web pages and DNS resolution.

Transition Schedule and Milestones

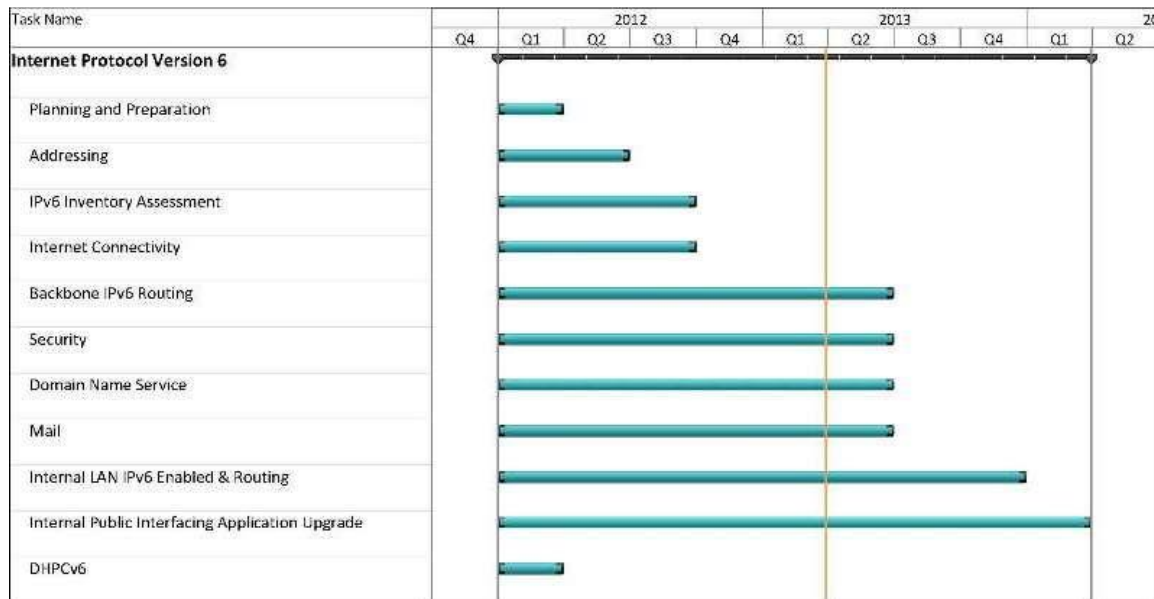


Figure 17: Internet Protocol version 6 (IPv6) Timeline

4.0 IT Asset Inventory

Given the sensitive nature of the data contained the IT Asset Inventory Matrix is available upon request but is not provided with the base submission.

5.0 Conclusion

The USDA Enterprise Roadmap presents a high-level, integrated description of the agency's IT-related strategic goals, business objectives, and enabling IT capabilities across all mission areas, agencies, and operating units. The description follows the enterprise architecture methods provided in the *Common Approach to Federal Enterprise Architecture* (OMB, May 2012) for the agency-wide current architecture, future architecture, and transition plans - including the modernization of existing systems to leverage web services, mobile optimization, and improved digital services (Digital Government Strategy sections 3.2). In addition, this Roadmap provides USDA's Business and Technology Architecture, which includes the following activities and measurements:

- Enterprise Architecture (EA) Maturity Measurement: A self-evaluation of the maturity of the Agency's EA Program.
- EA Outcomes and Measurements: A self-evaluation of the effectiveness of the agency's enterprise architecture program, examples of contributions to beneficial outcomes, areas for improvement, and measurement of value using the attached template.
- IT Asset Inventory collection: The IT Asset Inventory is a list of IT systems and applications that support mission, administrative, and commodity IT services.

Working with the Secretary, OCIO has prioritized the necessary investments to enable their most effective delivery and has developed a thoughtful and deliberate approach to implement these improvements. OCIO has identified the key initiatives upon which USDA will modernize its service offerings to ensure open, transparent and collaborative avenues through which USDA employees, farmers, ranchers, and all citizens can easily access USDA information from wherever they may be.

USDA is continuously evolving to meet organizational and stakeholder requirements. This evolution is built on a purposeful process-driven approach that has been developed in accordance with the guidance passed down by OMB and other governance bodies and in the context of current identified best practices. USDA's evolution is mission driven to ensure that the specific needs of the business community and the overall goals and objectives of the Department and its agencies are met. USDA has placed a high priority on facilitating its ability to leverage technology in a way that is responsible and ensures that acquisition and capability development occurs in a manner that ensures the government gets the best value from its IT commitments and delivers real value to the business community.

The 2014 USDA ER reflects the business driven approach of the Department and the priorities identified within the Roadmap reflect the alignment of USDA IT strategy to the higher-level goals and objectives of the Department. The Roadmap has been developed in accordance with OMB submission requirements and reflects the overall maturity of the USDA as it transitions to meet the challenges it will face in the coming years.

Lastly, this Roadmap addresses the major areas required to help the Department continue to provide leadership on food, agriculture, natural resources, and related issues based on sound public policy, the best available science, and efficient management. The Roadmap is a major part of ensuring that USDA continues to be recognized as a dynamic organization that is able to efficiently provide the integrated program delivery needed to lead a rapidly evolving food and agriculture system.

Appendix A: EAMMF Self-Assessment

USDA OCIO developed the EA self-assessment questionnaire in a Microsoft Excel 2007 based workbook. The USDA EAMMF Excel-based workbook was developed utilizing GAO's EAMMFv2. Numerical calculations were added from known and proven inspection agency scoring criteria. This scoring criterion provides a comprehensive, consistent, quantifiable, and repeatable process; that allows USDA and its agencies to develop mitigations for areas that require improvement.

Part I: OMB Capability Area Representation of Core Elements

- Completion: Measures agency completion of the current and target EA in terms of performance, business, data, services, and technology as well as the completion of the agency's enterprise transition plan.
- Use: Measures agency demonstration of EA awareness and establishment of the necessary management practices, processes, and policies needed for EA development, maintenance, and oversight. Also measures agency EA use in strategic planning, information resources management, IT management, and capital planning and investment control processes.
- Results: Measures actual results attributed to the EA, and therefore the effectiveness and value of its EA activities.

Part II: EA Management Action Representation of Core Elements

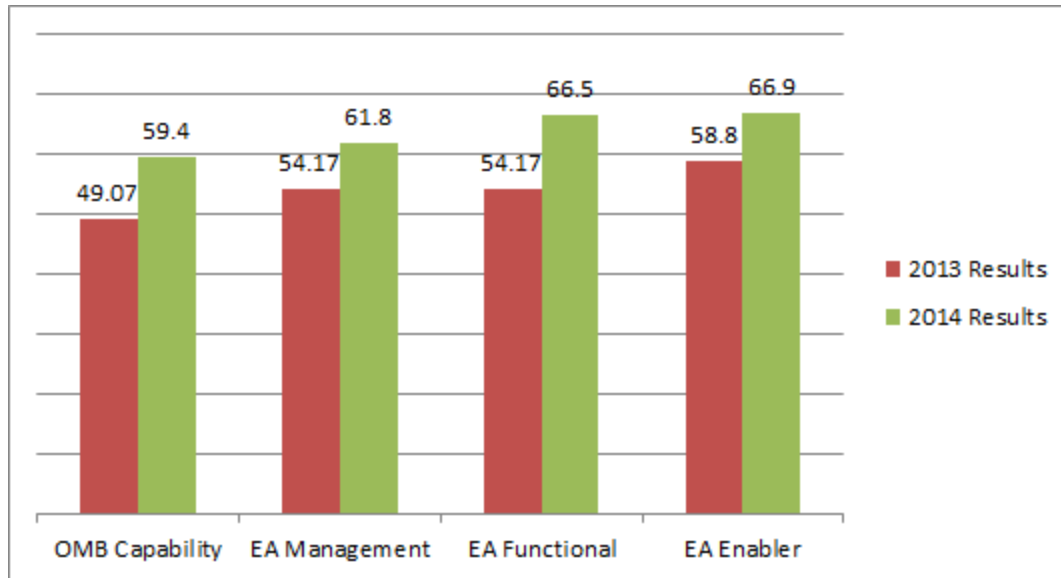
- Demonstrates commitment: Efforts and activities to show organization wide commitment to perform the function, initiative, or program by, for example, establishing policies, providing resources, and involving organizations leaders.
- Provides capability to meet commitment: Efforts and activities to put in place the capability (people, processes and tools) needed to execute the function, initiative, or program.
- Demonstrates satisfaction of commitment: Products, results, and outcomes that demonstrate that the function, initiative, or program is being performed.
- Verifies satisfaction of commitment: Efforts and activities to verify, via quantitative and qualitative measurement, that the function, initiative, or program has been satisfactorily performed.

Part III: EA Functional Area Representation of the Critical Success Attributes and the Core Elements

- **Governance:** The group of core elements that provides the means by which the EA program is managed.
- **Content:** The group of core elements that defines the actual substance and makeup of all of the EA artifacts as well as how these artifacts are derived, captured, maintained, and made accessible.
- **Use:** The group of core elements that provides for the actual implementation of the EA and treats it as an authoritative frame of reference for informed transformation, modernization, and investment decision making.
- **Measurement:** The group of core elements that verifies the quality of EA products and management processes and ensures that EA outcomes and results are achieved.

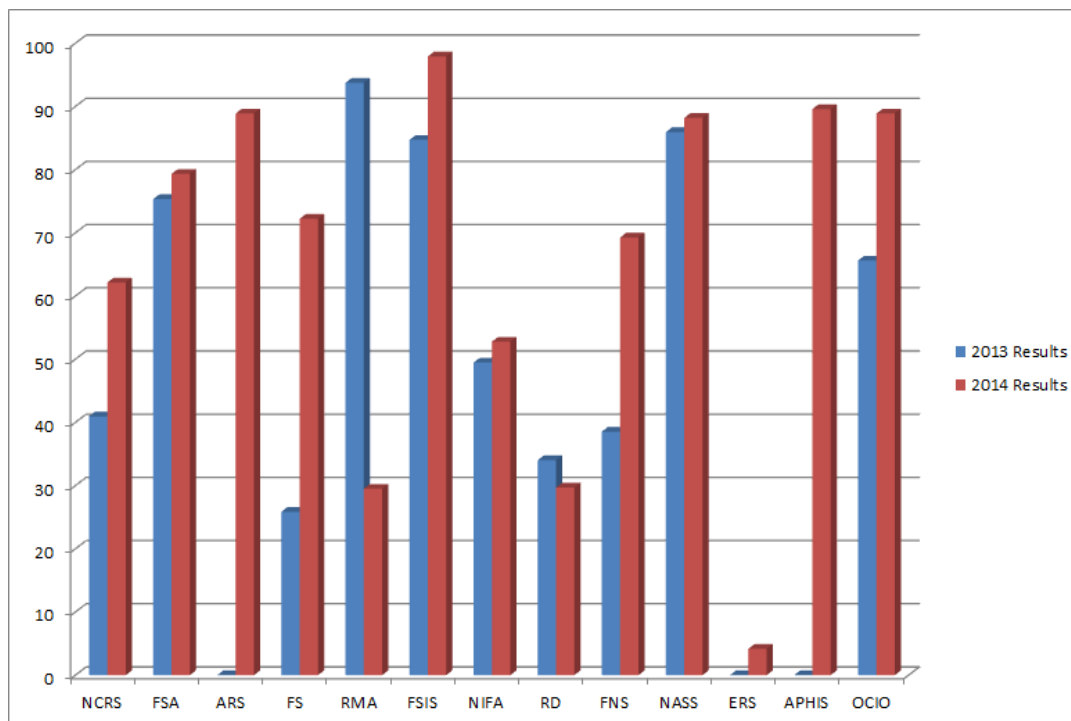
Part IV: EA Enabler Representation of Core Elements

- **Leadership:** Efforts and activities to assign senior executives responsibility and accountability for a given function, initiative, or program, including these executives' coordinated actions to guide, direct, oversee, and otherwise demonstrate their collective and individual ownership of the function, initiative, or program.
- **People:** Efforts and activities to ensure that the function, initiative, or program has sufficient human capital, including individuals with the necessary knowledge, skills, and abilities.
- **Processes:** Plans, policies, and procedures that govern how people are to execute the given function, initiative, or program. This organizational dimension also includes outputs of these plans, policies, and procedures, such as EA content.
- **Tools:** Frameworks, methodologies, and repository and analytical tools used to assist people in executing processes.



Part V: EA Responded Total

The USDA OCIO determined through the EAMMF self-assessment questionnaire that the USDA and its agencies scored higher in completion but lacked in use and measurements; contributions to these scores were the turnover in personnel, intermittent dedicated EA staffs, outdated policies and governance, education and awareness, and inconsistent configuration/change management.



Part VI: EA Maturity Model Framework Scale

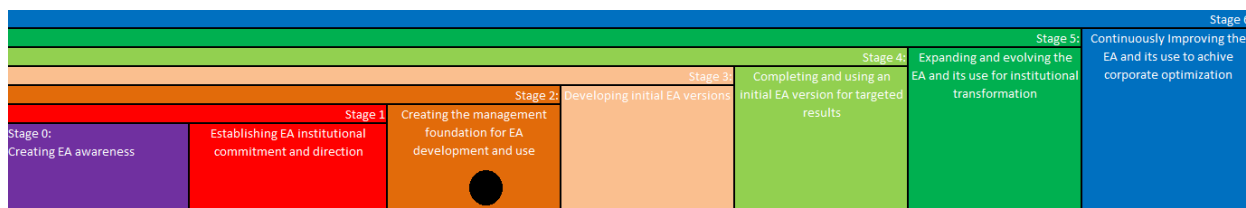
The USDA OCIO incorporated a visual scale to illustrate the relative maturity described within the GAO Executive Guide. This visual scale enables USDA agencies executive management, enterprise architect(s) and project/program/investment manager(s) to ascertain quickly the relative health and maturity of their organizations’.

2013 benchmark scoring scale

>89.9%	<89.9%>79.9%	<79.9%>69.9%	<69.9%>59.9%	>59.9%
Optimized	Excellent	Managed	Needs Improvement	Ad Hoc

2014 adjusted scoring scale

100%	>89.9%	<89.9%>79.9%	<79.9%>69.9%	<69.9%>59.9%	>59.9%	0%
Continuous Improvement	Expanding and Evolving	Completing and Using	Developing	Creating Foundation	Establishing Commitment and Direction	Creating EA



In conclusion, the 2013 USDA EAMMF self-assessment provided an initial benchmark to the USDA OCIO regarding current EA health and allowed USDA to identify and prioritize improvement opportunities for the next calendar year. In 2014, USDA measured its EA at a maturity of 65.58 percent, a ten percent increase from the 2013 baseline assessment. The 65.58 percent assessment on the GAO EA Maturity Model is at stage 2 “Creating the management foundation for EA development and user”. The USDA approach enables for identification, customization, and prioritization, opportunities for improvement; thus developing plans amenable for USDA agencies based on their business mission, size, resources available, and relative maturity in the framework.

Information Resources Management (IRM) reporting requirements per OMB Memorandum M-13-09, *Fiscal Year 2013 PortfolioStat Guidance: Strengthening Federal IT Portfolio Management*, March 27, 2013.

Appendix B: EA Outcomes and Measurements

Perspectives	Inventory & Outcome	Area of Measurement	Specific Measurement Indicator	Measurement Method & Targets (Timeline)	Comments
Spending Investments “Track how we change the As-Is to ensure effective IT spending via informed decision making”	EA Taxonomy RM alignment	Completeness Note: this was a focus of effort in 2013 with priority being PRM, BRM, and the ARM and DRM. In 2014 the focus of effort will be to improve ARM & DRM %s and expand into IRM.	% of Department investments aligned to PRM goals & measures	Majors: 100% Minors: 96%	
			% of Department investments aligned to BRM (primary field)	Majors: 100% Minors: 98%	
			% of Department investments aligned to DRM	Majors: 90% Minors: 67%	
			% of Department investments aligned to ARM	Majors: 96% Minors: 70%	
			% of Department investments aligned to IRM	Majors: 0 Minors: 0	
			% of Department investments aligned to SRM	Majors: 100% Minors: 91%	
	EA artifact completeness	Note: this was not a focus of effort in 2013. It is a 2014 focus of effort leveraging the IITGF gate reviews to enforce compliance.	% of Department investments with required PRM artifacts	Majors: 0 Minors: 0	
			% of Department investments with required BRM artifacts	Majors: 0 Minors: 0	
			% of Department investments with required DRM artifacts	Majors: 0 Minors: 0	
			% of Department investments with required ARM artifacts	Majors: 0 Minors: 0	
			% of Department investments with required IRM artifacts	Majors: 0 Minors: 0	
			% of Department investments with required SRM artifacts	Majors: 0 Minors: 0	
	EA Outcomes	Shared Service usage	% of Department investments using shared services	12%	
			% of Department investments using commodity IT	We did not track this metric in 2013	

Appendix B: USDA Outcomes and Measures

Perspectives	Inventory & Outcome	Area of	Specific Measurement	Measurement Method & Targets (Timeline)	Comments
Assets: “Identify the As-Is inventory of assets & services. Ensure IT supports the Mission” Systems Services Security	Guidance / PortfolioStat	Asset requirements guidance	Has USDA published current year guidance on PortfolioStat process & data call.	Completed	Both 2013 and 2014 guidance was/has been published.
	Inventories	Completeness	# of systems identified in portfolio by EA	Via quarterly IDC	669 in Feb IDC
			# of systems identified in portfolio in CSAM		
			# of shared services identified as available to Agency’s missions	Via quarterly IDC (127 systems using shared services)	We track # of systems using shared services
	EA Security	Compliance	# of systems identified as needing NIST-SP-800 (FISMA) compliance	Via quarterly IDC	90.5% identified as needing FISMA compliance
			# of systems self-identified as requiring PII/PIA compliance	Via quarterly IDC	78% identified as needing PII/PIA compliance
	EA Outcomes	Coverage	% of systems mapped to investments by EA	Via quarterly IDC	93%
			% of systems identified as mapped to using shared services	Via quarterly IDC	19%

Appendix B: USDA Outcomes and Measures

Perspectives	Inventory & Outcome	Area of	Specific Measurement	Measurement Method & Targets (Timeline)	Comments
Reference Model progress “Identify asset & service categorization throughout the Agency to determine what it does”	Guidance	RM requirements guidance	Has USDA published current year guidance on FEA RM alignment	Completed	Both 2013 and 2014 guidance was/has been published.
	EA Taxonomy RM alignment Note: this was a focus of effort in 2013 with priority being PRM & BRM, and then the ARM and DRM. In 2014 the focus of effort will be to improve ARM & DRM %s and expand into IRM.	Completeness	% of Department systems portfolio aligned to PRM goal & measures	Via quarterly IDC	98% in Feb IDC
			% of Department systems portfolio aligned to BRM (primary field)	Via quarterly IDC	95% in Feb IDC
			% of Department systems portfolio aligned to DRM	Via quarterly IDC	67% in Feb IDC
			% of Department systems portfolio aligned to ARM	Via quarterly IDC	88% in Feb IDC
			% of Department systems portfolio aligned to IRM	Via quarterly IDC	0% in Feb IDC
			% of Department systems portfolio aligned to SRM	Via quarterly IDC	90% in Feb IDC

Appendix B: USDA Outcomes and Measures

Perspectives	Inventory & Outcome	Area of	Specific Measurement	Measurement Method & Targets (Timeline)	Comments
Artifacts “Track the means that is how we define EA”	Guidance	Artifacts requirements guidance	Has USDA published current year guidance on EA artifact requirements	Completed	Both 2013 and 2014 guidance was/has been published.
		Artifacts validation guidance	Has USDA published current year guidance on EA validation methodology	Completed	Both 2013 and 2014 guidance was/has been published.
	EA artifact completeness	Investments Note: USDA will focus on artifacts for major investments in 2014.	% of Department Investments with required PRM artifacts	Measured by IITGF gate reviews of investments	0 at End Of Budget Year (EOBY) 2013
			% of Department Investments with required BRM artifacts	Measured by IITGF gate reviews of investments	0 at EOBY 2013
			% of Department Investments with required DRM artifacts	Measured by IITGF gate reviews of investments	0 at EOBY 2013
			% of Department Investments with required ARM artifacts	Measured by IITGF gate reviews of investments	0 at EOBY 2013
			% of Department Investments with required IRM artifacts	Measured by IITGF gate reviews of investments	0 at EOBY 2013
			% of Department Investments with required SRM artifacts	Measured by IITGF gate reviews of investments	0 at EOBY 2013
Other	Inventories				
	Outcomes				

Appendix C: FY14 USDA Major Information Technology Investments Risks

Departmental Management Major IT Investment Risks

Optimized Computing Environment (OCE) Risks

OCE Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
10005	Office Environment - Network Head End Upgrade	Delivery is postponed due to lack of staff, funding or other project resources	Schedule	Low	Medium	Work to ensure adequate funding and resources are allocated to the OCE investment project execution.	Synchronize
10003	Office Environment - Modernization of Service Center Network Hardware	Complexity involved in right-sizing, configuring, testing, and deploying infrastructure components could be greater than originally anticipated, resulting in schedule slippage.	Schedule	Medium	High	ITS mitigates the complexity involved in right-sizing, configuring, testing, and deploying infrastructure components by incorporate adequate planning and architecting activities as part of the delivery of significant infrastructure components. As a next step, ITS will continue detailed planning efforts and implement comprehensive control mechanisms to mitigate the substantial schedule risks faced by this complex project.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
10001	Office Environment - Field Service Center WAN Optimization	The Deployment Vendor not having adequate knowledge	Project resources	Low	High	ITS has chosen proven mainstream technology that can be easily supported by many vendors in the marketplace.	Synchronize

OCE Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
1741	Investment execution complexity could become greater than originally anticipated.	Overall risk of investment failure	Low	Medium	Invest in adequate funding and resources for proper project planning and project monitoring.	Synchronize
4307	The current proposed funding for OCE/CCE of \$30M, nearly a 65% reduction from the initial funding planned for year 1 of the investment..	Overall risk of investment failure	High	High	ITS will maintain the OCE Business Case throughout the program's life cycle. As results are generated, this information will be used to strengthen and reaffirm the business case. As performance goals are achieved and benefits realized they will be proactively communicated to key stakeholders as per the program's communications strategy and marketing plan managed by the OCE PMO.	Synchronize

*USDA Identity & Access Management (IAM)**IAM Project Risks*

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
4112	ePACS: Visitor Management Solution	Resource availability	Schedule	Low	Low	Adjust priority of other projects to ensure adequate availability for this project.	Synchronize
5151	ePACS: PIV-A	Resource availability	Schedule	Low	Low	Adjust priority of other projects to ensure adequate availability for this project.	Synchronize
4109	ePACS: EEMS Integration	Resource availability	Schedule	Low	Low	Adjust priority of other projects to ensure adequate availability for this project.	Synchronize
4110	ePACS: EEMS Integration	Dependency on HSPD-DM integrating with EEMS before the ePACS integration can be completed	Schedule	Medium	Low	Consult experts. Pursue contractual recourse. Manage stakeholder's expectations	Synchronize

IAM Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5209	Dependency on various external teams (e.g. hosting, telecommunications) to complete tasks.	Life-cycle costs	Medium	Medium	Ensure adherence to standards, both technical and managerial. Emphasize the importance of regular status reporting.	Synchronize
5207	Planned resource availability	Life-cycle costs	High	High	Adjust priority of other tasks to ensure adequate availability for this task.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5217	Inexperience in new version of COTS product	Technology	Medium	Medium	Adjust schedule. Plan training. Consult experts	Synchronize
5219	Funding constraints	Life-cycle costs	Medium	High	Reduce costs where possible, stop help desk support when money runs out, lay off contractor staff	Synchronize
5211	Unexpected production issues	Life-cycle costs	Medium	Medium	Adjust schedule and manage stakeholder's expectations	Synchronize
5213	High availability server performance	Reliability of Systems	Medium	High	Include additional time in schedule to resolve performance issues. Improve project control.	Synchronize
7131	Inability to resolve technical issues with running out of the box reports.	Technology	High	Low	Consult experts. Pursue contractual recourse.	Synchronize
7133	Resolve defects in time to not impact the rest of the project schedule.	Schedule	Low	Medium	Improve communication and ensure QA and developers understand the importance of this project and the expectations.	Synchronize
2518	Resource constraints	Security	Medium	Low	Decrease the priorities of Operations and Maintenance, where appropriate, to allow progress on other tasks to continue.	Synchronize
2520	Loss of key personnel.	Reliability of Systems	Low	Medium	Ensure systems are well documented and cross training takes place.	Synchronize
7129	Agencies not migrating off legacy system before ATO expires.	Life-cycle costs	High	Medium	Ask ASOC for a six month ATO extension	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
7135	SiteMinder 12.51 Software upgrade	Technology	High	Medium	Work with vendor to resolve issues. Escalate issues through vendor and federal management for higher visibility, if needed	Synchronize
7137	IdentityManage 12.6 Software upgrade	Technology	High	Medium	Work with vendor to resolve issues. Escalate issues through vendor and federal management for higher visibility, if needed	Synchronize
7139	Global EDC changes	Reliability of Systems	High	Medium	1. Ask NITC to allow us to sit on NITC's Change Control Board to ensure eAuth and EEMS are not adversely affected by the changes. 2. Consider moving CERT environment to a different domain.	Synchronize
	FCCX too expensive	Life-cycle costs	Medium	Medium	1. Negotiate a more palatable price. 2. Develop a custom solution	Synchronize
	Agencies not migrating off legacy system before Windows 2003 end of life (July 2015).	Life-cycle costs	Medium	High	1. Begin shutting down eAuth 1 service; 2. Shift resources to upgrade servers; or 3. Purchase extended maintenance insurance.	Synchronize

USDA Security Operations Center (SOC) Risks

USDA Security Operations Center (SOC) Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
11931	Enterprise Active Directory Project	EAD is still at risk based on statements by some agencies that they do not plan to participate in the project.	Project resources	Medium	High	Encourage stakeholder participation by providing full overview of project benefits.	Synchronize
11927	Integrated Program Staff Support	Appropriate skilled resources available to execute program management plan	Schedule	Low	High	Find internal resources with existing contracting vehicles or detail staff from other agencies.	Omit Synchronization
	Incident Management	Addressing costly incidents. When a threat actualizes, ASOC has the responsibility for ensure incident handling policies and procedures are met by the agency or staff office. Incidents that are systemic to the enterprise, ASOC may have to expend resources to secure the environment.	Security	Medium	Medium	Find internal resources trained to handle incidents.	Synchronize
16285	DHS CDM - Pilot	ASOC Program budget and schedule meet the availability of DHS CDM service offering.	Schedule	Medium	Low	Use of alternate federal acquisition vehicle are available for procurement of services.	Synchronize
15925	Enterprise Patch & Vulnerability Management Pilot	Tool selected will meet all agency requirements.	Feasibility	Medium	Medium	Ensure agency participation in pilot program.	Synchronize
15929	Tivoli Endpoint Manager (BigFix)	Limitation in available trained staff to utilize tool to full potential.	Project resources	Medium	Medium	Train additional resources to reduce single point of failure.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
16287	Network Assessments	Cost for assessments exceed program budget	Life-cycle costs	Low	Low	Reduction in number of agencies to meet available program budget. Operational plans will be re-baseline to reset expectations.	Synchronize
15935	Continuous Monitoring	Strategic planning on requirements for continuous monitoring program meets or exceeds agency expectations.	Business	Medium	Low	Establish communications channels to permit agency feedback to be considered.	Synchronize
15937	COMSEC	COMSEC and Devolution work dependent on additional funding.	Dependencies and Interoperability between this investment and others	Medium	Medium	Business case submitted and approved by IPIC. Regular communication is sent to gain status.	Synchronize
15933	Devolution	Lack of funding pushing out project schedule. Devolution funding via IPIC and eBoard approval for funding.	Schedule	High	High	Devolution project will have to be re-baseline upon receipt of funding. (Risk acceptance)	Synchronize
15921	Enterprise Security Operations (ESO)	Vendor requirements for full deployment of inline SSA components may not be implemented in a timely manner.	Security	High	High	Executive Leadership collaborating to determine viable options.	Synchronize
15923	OpNet	Operational Use/Adaption by Agencies.	Strategic	Medium	Low	ASOC providing training sessions to Agencies to demonstrate the benefits of the tool.	Synchronize
15931	Operational Security Assessment	Assessments timely completion.	Schedule	Low	Low	Assessment team is working with Agencies to schedule appropriate dates for activities.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
						Assessment activities will not constrain normal business requirements.	
15941	Assessment and Authorization	Agency timely completion of A&A activities to receive ATOs.	Security	Medium	Medium	COE Liaisons will work with Agency ISSPMs to complete A&A activities or establish a commitment memo for A&A activities.	Synchronize
15939	Hosting Incident Handling	Addressing costly incidents. When a threat actualizes, ASOC has the responsibility for ensure incident handling policies and procedures are met by the agency or staff office. Incidents that are systemic to the enterprise, ASOC may have to expend resources to secure the environment.	Security	Medium	Medium	Find internal resources trained to handle incidents.	Synchronize

USDA Security Operations Center (SOC) Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
4393	IT security policies are the basic building blocks of information security used to define key organizational information security directives and mandates. Effective management of risk-based, cost-effective policies and procedures is needed to provide Department-wide security	Security	High	High	OCIO is developing a project plan which outlines a strategy to accomplish USDA IT Security Policy updates and develop an implementation strategy for all policy updates. Existing USDA subject matter experts from across the department will collaborate to come	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	protections for the agency's information. Any outdated and/or inefficient IT security-related policies and guidance documents put the integrity of critical of USDA data at risk, and jeopardizes compliance with federal law				up with all new policies.	
4397	Inconsistent management of mandatory training exposes the Department to both internal and external threats. A role-based IT training program can provide all users of the Department with security-specific education so they know what is required of them when a breach has occurred, and how to report the breach.	Life-cycle costs	Medium	High	OCIO is developing an integrated project team (IPT) to produce a Department standard for role-based training to IT Security personnel. This program would have to be maintained after the baseline is created.	Omit Synchronization
4829	As part of the President's Directive to Building a 21st Century Digital Government, dated May 23, 2012, federal agencies are encouraged to develop a roadmap focused, in part, to the growing mobile revolution. Demands are increasing for mobile access to more sensitive levels of USDA IT data. As more USDA business is conducted using mobile devices more IT resources become vulnerable to compromise. Hackers are targeting mobile platforms because these devices offer a treasure of	Strategic	High	High	OCIO will need a new program to manage mobile devices: FTE, software or subscription, hardware, services, and maintenance	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	sensitive data.					
4395	Lack of documentation for configuration and change management. Lack of consistency implemented across the Department for baseline configurations for all approved software and hardware.	Security	Medium	Medium	OCIO will provide Configuration Management Policy and Procedures.	Synchronize
6513	Target metrics are dependent on agency participation and completion of A&A activities.	Project resources	Medium	Medium	Adding additional program resource to support increase in workload.	Synchronize
6515	Lack of agency funding to execute new annual A&A requirements.	Life-cycle costs	High	Medium	COE Liaisons will work with Agency ISSPMs to complete A&A activities or establish a commitment memo for A&A activities.	Synchronize

Integrated Acquisition System (IAS) (OPPM) Risks

IAS Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	Oracle Discoverer	Dependency and Interoperability	Schedule	Medium	Medium	PSD is remaining in constant contact with the FMFI BI Team Lead. PSD will bring this up in upcoming planning meetings with the FMFI Team.	Omit Synchronization
17139	IAS One COTS Concept of Operations	One-COTS implementation delayed because of analysis results may or may not be valid. Impacting con-ops development and final decision to precede or not.	Schedule	Medium	Medium	Review and assess analysis results and methodology. Revalidate findings where necessary.	Synchronize
17141	IAS One COTS Concept of Operations	One-COTS implementation becomes cost prohibitive.	Initial costs	Medium	High	Conduct a thorough LCCE and technology assessment prior to program implementation. Use established program / project governance and management practices to keep cost risk manageable.	Synchronize
17143	IAS One COTS Concept of Operations	One-COTS implementation does not meet requirements and IAS program objectives.	Technology	Medium	High	Implement established program / project governance and management practices. Establish key go / no go decisions prior to program initiation.	Synchronize

IAS Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
7125	IAS System Availability	Technology	Medium	High	More reliable data required for all uses. Holding up full implementation of Discovery. Working w/ FMMI BI Team, may have to accept 1 out of 5 accurate data submissions	Synchronize
7127	IAS Help Desk Availability	Technology	Low	High	In the event that eAuth was down for a matter of days, it may be more practical to leave PRISM locked than to manually reset and resend all passwords. There will be a patch to allow for programmatic resetting of passwords for PRISM, however it is not yet available. Contingency plan currently under development to mitigate risk.	Synchronize
7123	IAS Regulation Compliance	Security	High	Medium	Awaiting compliance letter from FS.	Synchronize
7121	IAS Patch Management	Schedule	Medium	Medium	Pushing out the go-live date would allow enough time to complete the project and make other beneficial IAS-FMMI interface improvements. This has been communicated to the Associate CFO and COD Associated Director.	Synchronize

USDA Enterprise End User Shared Services (EUSS) Risks

EUSS Project Risks

None Listed

EUSS Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5909	Enterprise Active Directory Catastrophic Failure	Reliability of Systems	Low	High	There is not a formal mitigation plan for the Enterprise Active Directory (EAD) as the many locations of Domain Controllers across the country are built into the design of the EAD in order to mitigate the risk.	Synchronize
5911	Agencies Failure to Migrate to the Enterprise Active Directory	Schedule	High	Medium	There is a migration plan for each agency and an overall migration plan for migrating the entire group of agencies if the risk becomes evident.	Synchronize

USDA Enterprise Data Center & Hosting Shared Services Risks

USDA Enterprise Data Center & Hosting Shared Services Project Risks

None Listed

USDA Enterprise Data Center & Hosting Shared Services Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5903	Developing highly skilled IT talent to support data center hardware and programming languages that is not being taught to students at United States colleges and universities.	Technical obsolescence	Medium	High	Use all OPM authorities and hiring flexibilities allowed by USDA to attract and train new talent. Negotiate for staffing ceilings to allow student interns from the Pathways Program and veteran hiring.	Synchronize
5905	On-going diligence to secure the cloud service provider (CSP) from threats versus the business need for accessibility to the Internet connectivity.	Security	Medium	High	Close collaboration with the Federal Cyber Security community, USDA's ASOC and customer organizations to implement a security posture/framework and internal control structure commensurate the business impact analyses for production systems hosted at the data center.	Synchronize
5907	Ensuring adequate data protection against privacy or security breach throughout the layers of the infrastructure offered by the cloud service provider (CSP).	Security	Low	Medium	Collaboration with USDA's Agriculture Security Operations Center (ASOC) to install appropriate controls and monitoring tools for detection.	Synchronize

USDA Enterprise Messaging Systems-Cloud Services (EMS-CS) Risks

EMS-CS Project Risks

None Listed

EMS-CS Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5913	Bandwidth - Lack of bandwidth due to SharePoint migration to the cloud. Currently at 70% utilization.	Life-cycle costs	Low	Low	Proposed solution however funding required: ENS will utilize \$275,000 in GSA credits to purchase additional hardware designed to provide a permanent and scalable solution for the APHIS NAT issues, simplify fail-over, while permitting future capacity increases. MRC is approximately \$10,000 or \$120,000 per year. ENS will work with Microsoft team to implement software changes to the network system permitting dynamic fail-over for the Office 365 data centers. Modify MS contract for active/active.	Synchronize
5915	Email archiving - Current email archiving contract ceiling expected to be surpassed in September 2012. As storage increases so will costs year after year and no additional funding available.	Life-cycle costs	Low	Low	USDA is currently researching email archiving costs through our current provider (Microsoft) and reviewing options in house. Funding is required for either option.	Synchronize

USDA Enterprise Telecommunications Shared Services Risks

USDA Enterprise Telecommunications Shared Services Project Risks

None Listed

USDA Enterprise Telecommunications Shared Services Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
6021	Funding Shortfalls or Cuts	Life-cycle costs	Medium	Medium	Reduce service levels to meet funding levels, an overall reduction in service to customers based on funding provided for services.	Synchronize
6023	Trusted Internet Connection Stability	Technical obsolescence	Medium	Medium	Migrate to an Managed Trusted Internet Protocol Service (MTIPS)	Synchronize

Office of the Chief Financial Officer Major IT Investment Risks

Financial Management Modernization Initiative (FMMI) Risks

FMMI Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
11275	FMMI Deployment 3 Wave 2	Unavailability of training facilities or sufficient number of qualified trainers will cause delays in the implementation schedule. The project will need to train a large number of people in a shorter than optimum timeframe. Consequently agency trainees will not be able to attend the required training due to various conflicts or other reasons.	Schedule	Low	Medium	USDA and their selected vendor developed and maintain a Training Plan and created detailed training schedules for each deployment as early as possible in each deployment life cycle; this helps USDA schedule qualified trainers and training facilities for each course. USDA also : Makes Max use of agency facilities which is typically both cost effective and more convenient for agency users, leverages multiple training delivery mechanisms (classroom, web-based, printed material), provides separate	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
14119	FMMI Deployment 3 Wave 2	"Cost Creep" or miscalculation of costs may result in an inaccurate baseline against which to estimate and compare future costs. Insufficiently identified requirements can increase the costs as well.	Initial costs	Low	Medium	This risk is mitigated by monitoring the overall FMMI project against cost creep through the defined guidance of the FMMI PCCB. This established PCCB process monitors not only the Change Requirements, but cost associated with those changes. Additionally USDA: has created a detailed schedule and maps the tasks based on resource availability and task priority, Uses EVM to track schedules and cost impact of changes, ID's opportunities for Gov't resources to take more responsibilities and perform	Synchronize
14120	FMMI Deployment 3 Wave 2	The complexity of USDA's financial management functions is second only to the Depart of Defense. Agencies have been running their own antiquated systems, some of which are non-compliant with FSIO standards and have highly customized software. Failure to develop interfaces could jeopardize financial reporting.	Feasibility	Low	High	USDA limited the scope of implementation to GL, AP, AR, Disbursing, FM and Fin. Rpt. And feeder systems where functionality is provided by FMMI and developed requirements and a solid CCB process. Program Accounting Systems will interface FM and GL entries. Reporting of Financial Statements will occur via a data warehouse, consolidating accounting information from	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
						multiple systems.	
14121	FMMI Deployment 3 Wave 2	The new financial management system may be dependent on a single vendor thus preventing open competition amongst vendor for future procurements.	Risk of creating a monopoly for future procurements	Low	Low	USDA has mitigated this risk by ensuring that the new financial management system uses widely accepted technologies and that application will be portable to other technology.	Synchronize
14122	FMMI Deployment 3 Wave 2	The implementation may stall or Fail if the system does not meet the functionality specifications of USDA. Agency users may reject the system or USDA fails to secure adequate commitment from them.	Overall risk of investment failure	Low	Medium	The risk is mitigated by process review and configuration efforts, which focus on using best practices to standardize processes and configuration across USDA as well as to minimize major enhancements and customizations. USDA has engaged in process review and improvement efforts beginning in the acquisition phase and will continue over the life of the project.	Synchronize
14124	FMMI Deployment 3 Wave 2	If USDA does not fully define requirements and implement the appropriate business processes to align with the new financial management system the project will not deliver the full range or potential business benefits.	Business	Low	Medium	Process review and improvement efforts will focus heavily on using best practices to standardize processes across USDA will engage in process review and improvement efforts from the acquisition stage onward.	Synchronize
14125	FMMI Deployment 3 Wave 2	USDA and the Share Services Provider's telecommunications infrastructure may e	Technology	Medium	Medium	USDA and the Shared Services Provider ensure that the hardware, network,	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
		unable to handle the traffic volume (insufficient bandwidth). The volume of transactions will be too great for the software/technology selected. Any changes in the current infrastructure could pose technical challenges.				and SW will satisfy or exceed performance expectations with extensive performance and load testing.	
14126	FMMI Deployment 3 Wave 2	Strategic goals will not be met if USDA is unable to maintain compliance with all federal standards for systems management. If USDA is not able to maintain compliance, the Department will not be able to meet its strategic goals or support critical business requirements. Strategic goals may also not be met if the reporting capabilities of the selected product do not meet user needs.	Strategic	Low	Low	COTS software allows USDA to meet its financial management system requirements and goals for the new financial management system, including key provisions in the President's Management Agenda, E-Gov, and regulatory mandates. COTS software and well-defined reporting requirements will provide USDA with the ability to make timely and informed decisions based on financial and program data, which will improve process efficiency and effectiveness over time.	Synchronize
14127	FMMI Deployment 3 Wave 2	Strategic goals may not be achieved if unable to stay aligned with current FMLOB policies.	Strategic	Low	Low	This risk is mitigated by the development of the acquisition strategy. The FMMI acquisition strategy is in line with FMLOB guidance and the	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
						FMMI project team is coordinating their efforts with OMB.	
14128	FMMI Deployment 3 Wave 2	Lack of adequate funding a Continuing Resolution or future budget cuts may put the project at risk.	Project resources	Medium	High	OCFO works with USDA senior management & stakeholders to obtain necessary funding to meet all the milestones in the program. CRs will be managed by maintaining strict adherence to the OMB directives to keep tasking segments small and simple, focusing on critical business needs and strong oversight. OCFO will monitor cash flow during CR in accordance with Title 31, Section 1341 and FASAB 10. Reduction in scope will be investigated if required.	Synchronize
14129	FMMI Deployment 3 Wave 2	Lack of adequate staffing resources may put the project at risk.	Project resources	Medium	High	USDA monitors whether there are adequately skilled project resources and supplements with additional subject matter expert contractor support.	Synchronize

FMMI Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5488	Lifecycle costs could be miscalculated or based on assumptions that may change as detailed planning for each deployment proceeds and more detailed information becomes available. Key assumptions include the number of system users, the volume of transactions to be processed, the amount of SW tailoring that will be required, and the approach to recurring training. Changes to any of these assumptions could have a significant impact on the estimated lifecycle costs. Due to a steep learning curve f	Life-cycle costs	Low	Low	This risk is mitigated by FFP contracts already in place that were developed based on OCFO, its contractors, and the Shared Services Provider's experience with similar large agency implementations. Key assumptions used in the development of the cost estimate are fully documented. USDA also: Continues to maximize the use of FFP task orders and negotiates long-term contracts/MOUs with detailed SLAs. The contracts/MOUs will have clauses that protect USDA against unreasonable cost increases.	Synchronize
4573	Complexity involved in configuration, data conversion, testing, customizations and building interfaces could be more significant and difficult than originally expected resulting in schedule slip. With the aggressive implementation schedule for FMMI, the probability of this risk is increased.	Schedule	Low	Low	The implementation is complete and the risk has reduced from High to Low probability and impact.	Synchronize
5487	Life cycle costs could be miscalculated or based on assumptions that may change as detailed planning for each deployment proceeds and more detailed information becomes available. Key assumptions included the	Life-cycle costs	Low	Low	This risk is mitigated by FFP contracts already in place that were developed based on OCFOs, its contractors; and the Shared Service Provider's experience with similar large agency implementations. Key	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	number of system users, the volume of transactions to be processed, the amount of software tailoring that will be required, and the approach to recurring training. Changes to any of these assumptions could have a significant impact on the estimated lifecycle costs. Due to a very steep learn				assumptions used in the development of the cost estimates are fully documented. USDA also: continues to maximize the use of FFP task orders and negotiate long-term contracts/MOUs with detailed SLAs. The contracts/MOUs will have clauses that protect USDA against unreasonable cost increases.	
5486	The software may become out of date resulting in increased operations and maintenance costs.	Technical obsolescence	Low	Low	This risk is mitigated by the agreements between USDA and the vendor to clearly delineate the technical capabilities and support needed to process USDA's transactions and require the vendor maintain current COTS software. USDA has also: selected a vendor with a large federal client base, a demonstrated long-term commitment to that base and investment in the base's associated products, Required the vendor to provide multiple years (at least five" of maintenance and support.	Synchronize
5489	Network and hardware reliability, resulting in software inaccessibility, may cause significant downtime and/or performance issues which could delay processing activities. Errors in custom code could cause system failures, and unfamiliar operating	Schedule	Medium	Medium	USDA executed implementation plan focusing heavily on technical support, availability, reliability, and performance of the SW to ensure user confidence in the system. All requirements are clearly defined. It takes into account USDA Typical	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	procedures could lead to execution errors.				user and transaction volume, load balancing strategy, SLA with hosting provider, utilizes a government Cloud Computing to reduce redundancy, MaxAttention support from SW vendor, and developed Early Watch Alert procedures with USDA O&M team.	
5490	If the infrastructure of the financial management system is lost, destroyed or damaged, information may be lost.	Surety (asset protection) considerations	Medium	Medium	Established Disaster Recovery requirements in SLA with NFC including appropriate performance measures. Program Management ensures backup/restore and disaster recovery plan is in place. Requires yearly testing with data centers, backup of the database before running nightly cycle, backup sent to offsite DR location which houses fully operational application mirroring the primary system.	Synchronize
5491	USDA could lack Adequate funding, staffing levels and skills of the other resources necessary to implement the investment or it could fail to apply adequate operational and technical controls to manage it.	Capability of agency to manage the investment	Low	Low	Developed business case and justification from an early phase. Updates business case assumptions, cost estimates, and risks to ensure that USDA's ITIRB has information on costs and requirements. PMO has adequate staff levels and project management skills to manage the transition to this investment. USDA has ensured and will continue to ensure key project management resources	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
					are available to focus on FMMI implementation by reducing or eliminating non-FMMI assignments.	
5492	Some USDA agencies may be resistant to changing the way they currently do business. Organizational resistance to adopting process review and improvement practices will lead to under-realization of system benefits and user dissatisfaction. Resistance may be caused by a number of factors such as general resistance to process changes, parochial interests, or inadequate communication and stakeholder outreach.	Organizational and change management	Medium	Medium	The risk is mitigated by the implementation team working with each USDA agency to clearly identify how the agency is currently performing required technical functions and how they will be accomplished in the new system to ensure the agencies are aware of planned changes and the business process and that they are trained and prepared and accept these changes through a formal Agency Administrator assistance process.	Synchronize
5497	FMMI is designed to replace the existing financial management system and potentially some feeder systems. The replacement system may have additional functionality which agencies may desire to implement while implementing FMMI.	Organizational and change management	Low	High	USDA limited the scope of implementation to General Ledger, Accounts Payables, Accounts Receivables, Disbursing, Fund and Cost Management and Financial Reporting and feeder systems where functionality is provided by FMMI. The FMMI Project Change Control Board (PCCB) is briefed on the impact (cost and schedule) of all change requests. The PCCB approves/disapproves change requests as	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
					appropriate to the project scope and the FMMI contract limits modules available.	
5937	User do not attend required training classes for which they have registered	Organizational and change management	Low	Low	USDA will ensure no user ID are provisioned to users who do not complete of required training without the Under Secretary's acceptance of the risk if the user's access without training and reporting to the Secretary.	Synchronize
5494	Conversion of data from the legacy system may uncover inherent data problems. The agencies may be unable to ensure data integrity. Poor quality of data from feeders may jeopardize the overall integrity of data in the system.	Data/Info	Medium	Medium	Data cleansing done prior to conversion, Data conversion utilities will be thoroughly tested, and functional testing will be conducted against the converted data for validation. PM will ensure a strong systems assurance component. Interface SW components will ensure the quality of external data is fully met according to the overall data quality standards of the system. In addition, the system will need to have an accurate backup/restore routine to ensure a complete data backup.	Synchronize
5495	Under the Shared Services Provider model, USDA will be reliant on the network security provided by the Shared Services Provider. If the Services Provider network	Security	Low	Low	The program management mitigated this risk by ensuring that network security is thoroughly tested. Certification and Accreditation testing will	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	security is breached, sensitive USDA data may be compromised.				be performed periodically to ensure that network security standards are met. Additionally, FMFI is accessible only from USDA IP addresses. FMFI data on the network is encrypted and USDA requires the Shared Services Provider adhere to all Federal guidelines.	
5493	If the system is compromised, financial data are subject to fraud, waste, and abuse. Financial data that has been compromised could lead to incorrect reporting and decision-making.	Security	Low	Low	Ensuring that the application security model is thoroughly configured and tested for appropriate user-rights and access. C&A testing will be performed periodically to ensure that software security standards are met. System is role based and GRC software helps limit access to system to authorized users.	Synchronize
5496	Personal or proprietary information may become available to unauthorized personnel.	Privacy	Low	Low	This risk is mitigated during system, QA, and user acceptance testing. Access to authorized users only, not open to public. PII Masking implemented to restrict info to authorized business needs only.	Synchronize

NFC Shared Services- IT Systems Risks

NFC Shared Services- IT Systems Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
15437	General Support Systems Technology Refresh	Funding Not Available	Initial costs	Medium	High	If funding is not available will either extend schedule until funding is available or reprioritize available funding.	Synchronize
15439	General Support Systems Technology Refresh	Hardware no longer supported/obsolete	Technical obsolescence	Low	High	Hardware and software contracts are in place or being put into place that require contractors to ensure all hardware or software approaching end of life is replaced with equivalent or better hardware.	Synchronize
15441	General Support Systems Technology Refresh	Resource Availability	Schedule	Low	Low	Contract labor can be quickly obtained through an existing Systems Engineering and Technical Assistance (SETA) contract if internal resources become unavailable.	Synchronize
15443	General Support Systems Technology Refresh	Infrastructure Requirements/Standards Change	Technology	Medium	Low	Existing and planned contracts allow for technical insertions and technical substitutions. These modifications allow the purchase of hardware/software not listed in the original contract to meet new requirements.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
15445	General Support Systems Technology Refresh	Contract Delays	Schedule	Low	Medium	Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts are in place or being put into place to allow for rapid procurement and delivery of hardware and software as well as contractor support. In addition, adequate time for procurements, delivers, installations, and testing will be in the project plan.	Synchronize
15419	Enterprise Reporting/Insight	Delays in acquisition process	Schedule	Low	High	Project schedule agree to by upper management, constantly overseen by team with strong governance framework; periodic reporting to NFC Executive Management Board and Customer Board.	Synchronize
15421	Enterprise Reporting/Insight	Funding Shortfalls	Life-cycle costs	Low	High	Periodic reporting to NFC Executive Management Board and Customer Board; Robust internal NFC and external customer governance structure.	Synchronize
15423	Enterprise Reporting/Insight	Costs may exceed original estimates.	Life-cycle costs	Low	Medium	Fixed price contracting with explicit deliverables, formal change control and governance processes.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
15425	Enterprise Reporting/Insight	System(s) will be unable to provide necessary utility due to technical limitations.	Feasibility	Low	High	Continue carrying out market research and interviews with subject matter experts to ensure workability of chosen solution. Contracts with options to allow for appropriate hardware/software acquisitions. Alternative builds to evaluate and enhance system.	Synchronize
15427	Enterprise Reporting/Insight	System fails to provide required capabilities.	Reliability of Systems	Low	High	Performance-based, Fixed Price contracts with explicit deliverables; flexibility in selecting vendors; project management oversight, interactive builds with formal evaluation and enhancement activities; independent verification and validation for highest risk components.	Synchronize
15429	PPS Risk Mitigation	Changes may impede reliability of systems and services.	Reliability of Systems	Medium	High	Perform extensive testing of system changes and validation of data.	Synchronize
15431	PPS Risk Mitigation	Current system lacks adaptability to change.	Technical obsolescence	Low	High	Deploy changes in phases.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
15433	PPS Risk Mitigation	Skill sets and availability of resources may cause delays.	Reliability of Systems	Medium	High	Monitor project status with senior management on regular basis. Obtain training for staff, as needed. Utilize trained contractor staff, as appropriate.	Synchronize
15435	PeopleSoft Upgrade to Version 9.2	Delays in acquisition process.	Schedule	Low	High	Project schedule agreed to by upper management, constantly overseen by team with strong governance framework; periodic reporting to NFC Executive Management Board and Customer Board.	Synchronize

NFC Shared Service – IT Systems Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5939	Environmental (weather, disasters, etc.)	Business	Low	High	Dual data center are in place for Disaster Recovery purposes. Data is replicated to the backup site and put on tape that is stored in an off-site location.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5941	Facility Limitations	Business	Low	Low	The PM will plan and collaborate al hardware purchases with site-preparation team and facility managers to ensure adequate space, power, and HVAC are available.	Synchronize
5943	System or its products will be unable to interact with other NFC systems.	Reliability of Systems	Low	High	During the design phase, deliverables need to specify all interfaces and during implementation, system will utilize industry standards. Maintain constant communication with key internal stakeholders; governance and periodic reporting to the NFC Executive Management Board and Customer Board.	Synchronize
5945	Possible vendor default or contract non-performance.	Business	Low	High	Performance-based deliverables for vendor contractors. Option period in contracts to allow switch to alternative vendor.	Synchronize
5947	Customer involvement may not be sufficient to ensure reliability of data transfers.	Technology	Medium	Medium	Provide regular updates to customers on project status and required activities. Monitor project status and milestones regularly.	Synchronize
5949	Migrate to a new platform may jeopardize system security.	Security	Medium	High	Train development and security staff in new technology. Provide regular status updates.	Synchronize

Farm and Foreign Agricultural Services Mission Area Major IT Investment Risks

Farm Service Agency (FSA) Major Investment Risks

Consolidated Farm Loan Program Information & Delivery Systems #103 Risks

Consolidated Farm Loan Program Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
1378	Direct Loan System (DLS)	Congressional Budget cuts impact investment delivery	Initial costs	High	High	Keep sponsors apprised of budgetary impacts. Adjust delivery schedules and project scope according to available budget. Clearly articulate Funding Requirements and Mission Impact to Congress.	Synchronize
1379	Direct Loan System (DLS)	Telecommunications at remote service centers will not support CFLPIDS.	Technical obsolescence	High	High	Monitor response time of all implemented software applications. Work with ITS in projecting capacity requirements. Research the latest telecommunications technology for efficiencies and greater capacity.	Synchronize
1380	Direct Loan System (DLS)	Data Base Conversion of data is not successful because of bad data from Legacy Systems.	Data/Info	High	High	Provide the Field Offices and Finance Office lists of the bad data for their review, research, and correction.	Synchronize
1381	Farm Business Plan (FBP)	Dependency on Web Equity Solutions (WES) for Farm Business Plan data.	Dependencies and Interoperability between this investment and others	High	High	Fully document existing FBP application for potential replacement by in-house or another vendor.	Synchronize

Consolidated Farm Loan Program Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
959	The hardware, software and network systems required to support the integrated solution might be unavailable to meet user needs.	Reliability of Systems	Low	High	CFLPIDS design and planning efforts will focus heavily on technical support, availability, reliability, and performance of the software to ensure a high degree of reliability. Performance and other technical requirements will be clearly defined. The system will provide the capability to support FSA's typical user and transaction volume, as well as system response times defined by FSA. In addition, a load balancing strategy will be designed and implemented to minimize performance degradation.	Synchronize
960	Volume of Information Passed to Dashboard	Reliability of Systems	Medium	High	Structure data processing to limit the number of required database reads. Eliminate field calculations on retrieval. Implement GZIP (compression software) to optimize data traffic. Deploy suite of system monitoring tools.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
961	Legacy sub-system will become obsolete leading to potentially serious operations and maintenance problems.	Technical obsolescence	Medium	High	Ensure that selected alternative meets current and future requirements by using a flexible and open architecture, as aligned with USDA and FEA enterprise architecture. Select solution that interfaces with existing, viable FSA hardware/software and has capability to interface with any products scheduled for future implementations. Plan periodic technology upgrades. Follow Departmental technical / enterprise architecture requirements.	Synchronize
962	Internal risk of access to the system by unauthorized parties.	Schedule	Low	High	Selected solution incorporates mature security technology that will meet needs of FSA s offices and divisions. Such needs include password protection, role-based application security privileges, and the use of quality controls for security and audit capabilities. FSA will ensure that this project complies with FSA IT security policies and that system components are certified and accredited.	Synchronize

Farm Program Modernization (MIDAS) #097

MIDAS Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
14133	Initial Operating Capability (IOC) Release 1 Deployment D1.0	(ID-343) If the system (both environment and network) does not remain stable and available, then project work may slip; and the MIDAS go-live date may be jeopardized.	Schedule	High	High	Document the outages, maintain executive stakeholder visibility and escalate outages for immediate resolution.	Synchronize
14134	Initial Operating Capability (IOC) Release 1 Deployment D1.0	(ID-344) If the MIDAS FOC is not defined, then the program will not be able to accurately plan the program re-baseline.	Strategic	High	High	1. Engage with Agency and Business Leadership to define FOC by 2/28. (complete) 2. Document MIDAS FOC as part of MIDAS re-baseline.	Synchronize
11901	Initial Operating Capability (IOC) Release 1 Deployment D1.0	(ID-345) If the O&M plan is not completed and implemented by July 1, then MIDAS sustainment operations may not be adequate to support the integrated solution.	Organizational and change management	High	High	1. Engage with O&M organization to align with Hyper care procedures 2. O&M participating in the creation of the certified CoE 3. Developing a workforce transition and knowledge transfer plan to prepare O&M resources	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
11903	Initial Operating Capability (IOC) Release 1 Deployment D1.1	(ID-346) If the complex, first-time integration of SAP and GIS is not understood from a solution and technical architecture perspective, then the MIDAS solution stability may be at risk.	Overall risk of investment failure	High	High	1. Analyze defects to predict production issues 2. Add ESRI and SAP resources to identify and resolve problems (complete).	Synchronize

MIDAS Operational Risks

None listed

Risk Management Agency Major Investment Risks

RMA-13 Emerging Information Technology Architecture (EITA) Risks

RMA-13 Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
17031	Corporate Reporting & Business Intelligence (CRBI)	13.7 Legislative priorities in the 2013 Farm Bill could reprioritize existing system development efforts.	Business	Medium	Medium	Identified potential developer and testing resources to roll onto the contract when the Farm Bill is signed.	Synchronize
17035	Escrow	13.7 Legislative priorities in the 2013 Farm Bill could reprioritize existing system development efforts.	Business	Medium	Medium	Identified potential developer and testing resources to roll onto the contract when the Farm Bill is signed.	Synchronize
	Price Discovery Overhaul	13.7 Legislative priorities in the 2013 Farm Bill could reprioritize existing system development	Business	Medium	Medium	Identified potential developer and testing resources to roll onto the contract when the Farm Bill is signed.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
		efforts.					
17033	Corporate Reporting & Business Intelligence (CRBI)	19.1 Any delay would be incurred if significant staff turnover occurred, resulting in performance slowdown due to learning curve for replacements to come up to speed.	Project resources	Low	Low	Establish cross-training and documentation efforts as part of the Product Backlog.	Synchronize
	Price Discovery Overhaul	19.1 Any delay would be incurred if significant staff turnover occurred, resulting in performance slowdown due to learning curve for replacements to come up to speed.	Project resources	Low	Low	Establish cross-training and documentation efforts as part of the Product Backlog.	Synchronize
17037	Escrow	19.1 Any delay would be incurred if significant staff turnover occurred, resulting in performance slowdown due to learning curve for replacements to come up to speed.	Project resources	Low	Low	Establish cross-training and documentation efforts as part of the Product Backlog.	Synchronize
	Price Discovery Overhaul	5.5 Any issues with applications and systems being 508 compliant could impact program delivery.	Feasibility	Medium	Medium	" Establish the 508 Compliance remediation plan to identify steps to define the agency's 508 compliance requirement. Include 508 Compliance as a Product Backlog requirement in all User Stories that	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
						involve user-facing functionality. Perform peer reviews and QA testing."	
	Corporate Reporting & Business Intelligence (CRBI)	1.10 The CRBI Task 10 Team only has a partial QA resource, which could impact or delay delivery of the project.	Schedule	Medium	Medium	The CRBI project schedule will reflect the 60% allocation of time that our QA resource has on CRBI. The project schedule will need to be adjusted, or is another QA resource becomes available; the resource plan can be adjusted.	Synchronize
	Escrow	6.7 RMA requires the ability to run ad hoc queries against the Escrow Database at any time for items that cannot be pre-defined. Appian stated that this could degrade system performance. MySQL DB in the cloud has restrictions that impact the ability to generate queries.	Schedule	Medium	Medium	Design a nightly load to a SQL Server on the ground that permits RMA the ability to execute ad hoc queries without the cloud restrictions and system performance impacts.	Synchronize

RMA-13 Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
1748	4.5 Any change in vendor viability or financial standing (bankruptcy, merger, acquisition, etc.) or organization that may impact vendor ability to	Technical obsolescence	Medium	Medium	Ensure all application documentation is updated, maintained, and retrievable by Fed resources.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	deliver hardware, software, other technology product.					
1751	5.4 Probability of system performance and cost meeting or exceeding investment goals.	Feasibility	High	High	Require monthly cost and schedule tracking with system performance metrics.	Synchronize
1772	19.5 Attrition of Key Development Personnel would seriously impact system support.	Project resources	Medium	High	RMA thought this risk was mitigated by contracting it out. Unfortunately the transition between contracts caused serious delays due to departure of key sub-contractor. This caused significant re-staffing and loss of corporate knowledge. RMA must assure general contract has presence in each swim lane.	Synchronize
4843	3.3 If projects are not funded under Investment 13, it could impact the agency's ability to decommission legacy systems funded through investments 1 & 2.	Life-cycle costs	High	High	Re-baseline projects with approval from OCIO.	Synchronize
5557	7.2 Data volume issues may impact system performance and architecture design.	Dependencies and Interoperability between this investment and others	Low	Low	Conduct Load and Stress tests as part of Quality Assurance testing.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5559	9.5 Contract oversight insufficient to be sure products being developed under project are not proprietary to contractor doing development, that products are completely documented, and that ownership transference is easily done with employee training ship transference is easily done with employee training.	Schedule	Low	Low	Products developed using COTS and market-based solutions easily transferable to other contractors.	Synchronize
5561	12.2 Integrated Master Schedule must be made available to enable all ITM stakeholders access to schedule planning.	Organizational and change management	Low	Low	Integrate workbooks into the IMS to provide the lowest level of detail for the agency reviewers.	Synchronize
5571	16.4 Ability of new system(s) to handle program changes and growth.	Strategic	Low	Low	Complete monthly system performance metrics and determine common and special causes for variances outside of the control limits.	Synchronize
	17.1 Any delay in implementation disaster recovery and failover processes for project will further impact RMA's security compliance.	Security	Low	Low	Prepare a thorough Disaster Recovery Plan and continue with existing tape and off-site backup processes.	Omit Synchronization
5565	17.8 Test Environment Must Mirror Production environment to provide the capability to complete Load and Performance testing. Variant testing and production environments limits the capability to determinine impact analysis of new sytems introduced into	Reliability of Systems	Low	Low	Perform Load and Performance testing on code during Quality Assurance testing. Calculate impacts on the Production environment based on results in the Test environment. Seek other funding opportunities to provide funds for the mirror test	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	production prior to deployment.				environment.	
5567	19.5 Existing contractor skill sets may not match to new development skill needs.	Project resources	Low	Low	Control Review opportunities to enhance skill sets of existing contractors or replace existing contractors with individuals who have the needed skills .	Synchronize
5951	6.6 Ability of accounting system(s) to perform accurately, with veracity and provide audit trails.	Reliability of Systems	Low	Low	Maintain parallel testing capability until legacy capabilities are established in re-engineered systems.	Synchronize
5953	13.6 RMA currently does not have a viable Disaster Recovery site capable of providing a seamless rollover of Business processing in the event the Beacon Data Center is destroyed. This could impact RMA's ability to achieve its mission and fail to adhere to regulatory responsibilities of providing crop and livestock protection.	Business	High	High	Maintain the existing tape backup strategy to support business processing short term and work towards developing cost effective disaster Recovery site for RMA so that seamless rollover of business processing can be achieved.	Synchronize
5955	14.7 System may not be adequately sized to handle five years of Reinsurance Year data and processing requirements.	Schedule	Low	Low	Monitor system processing metrics and storage capacity. Estimate five RYs data by projecting existing data metrics.	Synchronize
5957	15.8 -- Ability of procedure(s), tool, environment, and team to meet deployment requirements.	Technology	Medium	Medium	External review of each component (procedure(s), tool, environment, and team) to find and resolve defects and streamline deployment activities.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5959	15.9 The migration of custom applications to COTS products could impact business continuity	Technology	Low	Low	Ensure thorough testing of COTS product functionality including parallel testing of existing processing.	Synchronize
5961	16.5 Ability of new system(s) to handle program changes and growth	Strategic	Low	Low	Employ network, system, and storage arrays that contain excess capacity. Handle new functionality through Change Control Board procedures.	Synchronize
7113	13.8 In the event of a Government shutdown, RMA business processing will be held. This could result in RMA missing contractual commitments to our customers, incurring penalties, and potential interest payments.	Business	High	Low	Prioritize restart work to focus on payment processing applications to reduce the financial impact to RMA.	Synchronize

Food, Nutrition, and Consumer Services Mission Area Major IT Investment Risks

Food and Nutrition Service (FNS) Major Investment Risks

FNCS IT Infrastructure Risks

FNCS Project Risks

None Listed

FNCS Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
963	Loss of the primary host site	Surety (asset protection) considerations	Low	High	Risk Mitigated via daily system data/ software backup, alternate host-site agreements, and regular COOP testing	Synchronize
964	Unauthorized access	Security	High	High	Risk avoided via password access controls and internal access restriction based on job requirements	Synchronize
965	Compromise of privacy information	Privacy	Low	Medium	Risk mitigated through strict access controls to all system data.	Synchronize
966	Network failure	Reliability of Systems	Low	High	Continual review and management of network performance.	Synchronize

Food Safety Mission Area Major IT Investment Risks

Food Safety Inspection Service (FSIS) Major Investment Risks

FSIS Public Health Data Communications Infrastructure System (PHDCIS) Risks

PHDCIS Project Risks

None Listed.

PHDCIS Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5841	DW-GSS may not capture sufficient information in audit records to establish what events occurred, the sources of the events and the outcomes of the events. The information system may not include the capability to include additional, more detailed information in the audit records for audit events identified by type, location, or subject. The information system may not provide the capability to centrally manage the content of audit records generated by individual components throughout the system.	Data/Info	Medium	Medium	Submit database audit logs for the DW-GSS. Update the DW-GSS audit log SOP.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5843	Configuration management policies and procedures may be inadequate for the system.	Reliability of Systems	Low	Low	Review all current baseline configuration documents and add updated information as needed such as: "SOP for Baseline of Cisco IOS Devices.doc", "SOP for Baseline of Juniper SSG-20 Devices.doc", "Configuration Instructions for the 3500 switch1.doc", "SOP for Maintaining the Cisco ASA.doc" and "SOP for VoIP Configuration and User Guide Instructions.doc". Document the baseline configuration for Cisco.	Synchronize
5845	Improper methods of granting and recording physical access puts the physical assets of the Enterprise GSS at risk for exploitation.	Technical obsolescence	Medium	High	1. Access codes issuance process to be developed, documented, maintained, and incorporated into the current (Enterprise GSS system) access control SOP.2. System access SOP to ensure procedures for verifying authorized users granted appropriate access and, users are granted appropriate access and the various roles are well defined, along with a properly adjudicated security background.3. Review of lists and policies will provide a degree of assurance that users are given access to facilities	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
1882	Lack of a data quality may result in inefficiencies or data errors in systems that rely on data warehouse data.	Data/Info	Medium	Medium	Develop Quality Assurance Plans, Configuration Management Plans, Change Management Plans, and Independent Verification and Validation approaches unique to data warehouse and data quality requirements.	Synchronize
5847	Lack of an approved policy and procedure that govern how accounts are created, who created them, who reviews them and how inactive accounts are treated.	Capability of agency to manage the investment	Low	Low	To mitigate this risk, FSIS will: 1. Update the SSP to accurately label this control as Hybrid instead of only Inherited.2. Correct the system that is offering inheritance; it should be the Enterprise GSS and not Network GSS or FSIS OCIO.	Synchronize
5849	Documentation defining protection of media during transport is not specifically defined or is missing.	Capability of agency to manage the investment	Medium	Medium	To mitigate this management risk, FSIS will: 1. Develop policies and procedures to specify which media requires protection and document the transport process.	Synchronize
5851	Technology Refresh: Many IT products are nearing end of life and require refresh.	Technical obsolescence	High	Medium	Document all IT products in EA repository and track life cycle in an effort to proactively acquire IT replacements when needed.	Synchronize
5853	Cloud First: design approach requires an IAAS, PAAS, and SAAS consideration.	Capability of agency to manage the investment	Medium	Medium	Work with Department to understand cloud offerings and develop business case for appropriate IT approach.	Synchronize
5855	EDC Migration requires IT business model and design reconsideration.	Capability of agency to manage the investment	High	Medium	Work with NITC to understand IT Portfolio Service Offerings and develop business case for	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
					appropriate IT approach.	
5857	AC\NAC	Capability of agency to manage the investment	Medium	Medium	Working with stakeholders.	Synchronize
5859	Cyber Security Threats requires security devices and training in areas often yet unknown.	Capability of agency to manage the investment	Low	Medium	Proactively engaged in working with vendors and technologies to ensure required training is available.	Synchronize
5861	Budget: Looming budget reductions.	Capability of agency to manage the investment	Medium	Medium	Migrating to products and servers to the EDC to achieve savings.	Synchronize

FSIS Public Health Information System (PHIS) Risks

PHIS Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
9725	Public Health Information System.	Costs for Deployment of State Use functionality can exceed budget if previously defined requirements/design not accurate	Life-cycle costs	Medium	Medium	Minimum requirements defined for implementation for State Use that will not exceed budget	Omit Synchronization
9727	Public Health Information System.	FSIS stakeholders may request changes to baseline functionality prior to production deployment.	Organizational and change management	Medium	Medium	Institute change control procedures to prioritize changes based on impact assessment.	Omit Synchronization
9729	Public Health Information System.	Export function may not be deployed on schedule pending final rule.	Schedule	Medium	Medium	Communicate benefits and cost savings to government and industry to be achieved by deployment of Export function. Final Rule for Export Fees must be in place before Export function can be deployed.	Omit Synchronization
9731	Public Health Information System.	User connectivity - Some PHIS Users are in remote locations and may not have reliable access to Broad Band Svc.	Technology	Medium	High	Inspection assignment will have at least one Broadband connection which will allow inspectors to connect to the network.	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
9733	Public Health Information System.	Network and Server Performance Load Impacts for Domestic and Imports and State Use	Life-cycle costs	Medium	Medium	Mitigation is to procure and deploy additional servers and network equipment into NITC prior to the completion of the rollout of PHIS to Domestic Users in January 2012. Assign a Project Manager, develop installation plan, communicate schedule to IPT meetings, coordinate with FSIS and NITC personnel, and ensure readiness to complete installation, conduct I12Deployment Readiness Review, and monitor progress to closure. Risk due date: 3/31/2012.	Omit Synchronization
9735	Public Health Information System.	Department Driven Security Mandates, such as Internet Explorer Updates (IE 9)	Organizational and change management	Medium	Medium	Conduct thorough regression testing when software and system changes are mandated to ensure user functionality (web and disconnected client) are not adversely affected. Implement code fixes as part of O&M. Perform additional regression testing to validate fixes.	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
9737	Public Health Information System.	Operating System Updates	Life-cycle costs	Medium	Medium	Conduct detailed regression testing of 4,000 PHIS user interface screens; identify and prioritize defects found in testing; deploy fixes prior to Window 7 rollout in March 2014	Omit Synchronization
9739	Public Health Information System.	Future User Growth	Feasibility	High	High	Mitigation is to procure additional servers and network equipment for the NITC DMZ to alleviate Industry User performance problems. Monitor for potential performance and bottlenecks problems. Monitor number of Industry Users.	Omit Synchronization
9741	Public Health Information System.	External Interfaces to PHIS	Life-cycle costs	High	Medium	PHIS to include external interfaces with industry and other government agencies that may impact PHIS costs. All systems interfacing with PHIS will be assessed through the Enterprise Architecture Board Technical Review Board and Investment Integrated Program Team for potential impact.	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
9743	Public Health Information System.	Code Complexity	Life-cycle costs	High	High	Monitor customer relationship management systems tickets for code defects, perform lessons learned and defect analysis to identify root causes, document code clean-up tasks, schedule in Release management schedule.	Omit Synchronization
9745	Public Health Information System.	Data Warehouse Performance	Life-cycle costs	High	Medium	Establish a Data Warehouse working group to review impacts to PHIS, perform performance and stress testing relative to PHIS data tables, monitor data quality and performance. Enterprise Architecture Board and Technical Review Board to validate FSIS Data Warehouse changes will not impact PHIS.	Omit Synchronization
9747	Public Health Information System.	Industry O&M Support	Organizational and change management	Medium	Medium	Establish an Industry Support working group to plan, review, and implement Industry Service Desk capabilities, training, outreach and communications for industry	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
9749	Public Health Information System.	POAMS or Security related Actions May Drive Rework to PHIS System	Organizational and change management	High	High	Monitor security threats and vulnerabilities; implement POAMS and SUNS affecting the PHIS system.	Omit Synchronization
9751	Public Health Information System.	Technology Refresh requires software modifications	Organizational and change management	High	High	Gap analysis to determine necessity of implementing new technology.	Omit Synchronization
9753	Public Health Information System.	Exports Rule	Life-cycle costs	Medium	High	Work with Department, OMB, and Congress to establish Exports Rule (fee) for foreign Governments use of PHIS.	Omit Synchronization

PHIS Operational Risks

None Listed.

Marketing and Regulatory Programs Mission Area Major IT Investment Risks

Agricultural Marketing Service (AMS) Major Investment Risks

Web-Based Supply Chain Management (WBSCM) Risks

Web-Based Supply Chain Management (WBSCM) Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	FY14 SAP Technical Upgrade	If production outages are longer than plan then business operations could be impacted.	Schedule	Medium	Medium	<p>1: Identify seasonal or other critical business operation times for FY14 (Sep) (Complete)</p> <p>2: Plan to split production outage tasks into separate activities to minimize contiguous downtimes (Oct) (Complete)</p> <p>3: Pretest and Mock activities prior to cutover (Apr)</p>	Synchronize

Web-Based Supply Chain Management (WBSCM) Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
671	Risk of increasing custom development to the COTS solution resulting in increased cost of O&M - ongoing production operations support and cost of future upgrades.	Life-cycle costs	Medium	Medium	Governance structure to assess all change requests for solution impact and avoid / limit any further customizations.	Synchronize
672	Aging software and hardware components result in higher operational costs. Vendor support costs will increase as components age. Repair response times and costs will increase. Increased difficulty in locating knowledgeable resources.	Life-cycle costs	High	Medium	Determine funding and plan out sequence/projected dates of upgrades to include hardware and software.	Synchronize

Animal and Plant Health Inspection Service (APHIS) Major Investment Risks

Animal Disease Traceability Information System (ADTIS)

ADTIS Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
11291	FISMA Compliance FY13.	Software and Hardware assets involved in this implementation are exposed to the possibility of theft or intentional damage by trusted resource.	Security	Low	Low	Standard USDA security protocols	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
11289	Acquisition Support FY12.	Help Desk Contractor defaults	Business	Low	Medium	Perform due diligence prior to contract award; Familiarize staff with help desk operations as a backup plan.	Omit Synchronization
	NITC Hosting FY15	System will lose its ability to interact with requesting organizations (such as animal ID tag makers) and their applications to allocate or validate premises and animal IDs, both externally and internally.	Dependencies and Interoperability between this investment and others	Low	Medium	An Application Program Interface (API) has been built to provide a standard for interaction with other applications, both internally and externally. Most of the major application integration is with systems under the control of this organization. The architecture for the internal applications is similar and they obviously reside on the same network. The API is in place and operating, development is underway for integration of several internal applications.	Synchronize
17027	FTE Support FY14.	Processes and workflow demands of this application are not compatible with the workforce and workflow of the using organizations.	Organizational and change management	Medium	Medium	Maintain constant communication with the stakeholders so that they understand the scope of the system and the skills and resources necessary for its use enough in advance to react. Training will be provided prior to implementation and throughout the system life cycle to maximize the	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
						efficiency of the user interaction. Communication has begun with interested states to understand requirements and promulgate decisions.	
17029	FTE Support FY14.	The ADTIS may not stay aligned with the program office.	Business	Low	Medium	Remain in communication with the program office to remain cognizant of business requirement modifications. There will also be mutual participation on the change control board. Communication is constant between the development team and the program office and there is ongoing dissemination of funding and business plans.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
17025	Acquisition Support FY14.	If proper data validation is not in place, there is the risk of providing duplicate IDs for a single premises or animal. Once allocations are made, the integrity of the data must be maintained to provide the traceability inherent to the goal of the system.	Data/Info	Low	High	Use the software tools to validate data entry, specifically uniqueness, and then to protect the integrity of the data repository using operational and technical controls identified in the security plan. Validation has been coded into the assignment and validation process. Accuracy is being monitored/measured, and a help desk has been established to validate data. A SOW has been issued to evaluate the presence and effectiveness of security controls. Closely monitor the volume of transactions made.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
17023	FISMA Compliance FY14.	The potential that a system cannot be maintained that satisfies the business requirements in a sufficiently secure environment and federally-maintained data will be compromised.	Schedule	Low	High	Accreditation of has been completed, and the associated controls are monitored and updated throughout the system life cycle. Budget has been allocated to establish the necessary operational and technical controls, to acquire an independent evaluation of those controls, and to remediate the identified risks. The application resides on the established infrastructure, at an extremely secure site. Standards for interaction with this system are established to minimize vulnerabilities.	Synchronize

ADTIS Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
675	The potential that the volume and variety of transactions will overcome the architecture.	Reliability of Systems	Low	Medium	Architect for greater than the anticipated load at a given moment. Utilize technology improvements as they become available. States will also be brought on in stages to	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
					avoid quantum jumps in demand and to allow graduated upgrades in processing and communication resources. Baseline current performance and test at intervals.	
676	System will lose its ability to interact with requesting organizations and their applications to allocate or validate premises and animal IDs, both externally and internally.	Dependencies and Interoperability between this investment and others	Low	Medium	An Application Program Interface (API) has been built to provide a standard for interaction with other applications, both internally and externally. Most of the major application integration is with systems under the control of this organization. The architecture for the internal applications is similar and they obviously reside on the same network. The API is in place and operating, development is underway for integration of several internal applications, and no problems have been encountered.	Omit Synchronization
678	The possibility of accidental damage by fire, water, etc.	Surety (asset protection) considerations	Low	Medium	All the components of this application, including all hardware and software, are in a secure hosting facility at NITC in Kansas City. The current location is protected by armed security guards, security cameras, building access control, and separate computer access control.	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
679	The possibility of system failure at NITC	Surety (asset protection) considerations	Low	Low	Twice a year, the capabilities of the system are tested by failing over to the coop site at GWCC.	Omit Synchronization
680	Processes and workflow demands of this application are not compatible with the workforce and workflow of the using organizations.	Organizational and change management	Medium	Medium	Maintain constant communication with the stakeholders during development so that they understand the scope of the proposed system and the skills and resources necessary for its use enough in advance to react. Training will be provided prior to implementation and throughout the system life cycle to maximize the efficiency of the user interaction. Communication has begun with interested states to understand requirements and promulgate decisions.	Omit Synchronization
4595	The ADTIS may not stay aligned with the program office.	Business	Low	Medium	Remain in communication with the program office to remain cognizant of business requirement modifications. There will also be mutual participation on the change control board. Communication is constant between the development team and the program office and there is ongoing dissemination of funding	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
					and business plans.	
681	If proper data validation is not in place, there is the risk of providing duplicate IDs for a single premises or animal. Once allocations are made, the integrity of the data must be maintained to provide the traceability inherent to the goal of the system.	Data/Info	Low	High	Use the software tools to validate data entry, specifically uniqueness, and then to protect the integrity of the data repository using operational and technical controls identified in the security plan. Validation has been coded into the assignment and validation process. Accuracy is being monitored/measured, and a help desk has been established to validate data. Closely monitor the volume of transactions made. All technology used is industry and Agency standard.	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
4597	The potential that a system cannot be maintained that satisfies the business requirements in a sufficiently secure environment and federally-maintained data will be compromised.	Security	Low	High	Accreditation has occurred and the associated controls have been monitored and updated throughout the system life cycle. Budget has been allocated to establish the necessary operational and technical controls, to acquire an independent evaluation of those controls, and to remediate the identified risks. The application resides on the established infrastructure, at an extremely secure site. Standards for interaction with this system are established to minimize vulnerabilities.	Omit Synchronization
	VS lacks the staff to complete POA&M remediation within required schedule.	Schedule	High	Medium	Change Due date of POA&M to reflect actual schedule. The CSAM application currently does not allow this date to be changed.	Omit Synchronization
6959	Assets involved in this implementation are exposed to the possibility of theft or intentional damage by a trusted resource.	Security	Low	Low	Standard USDA security protocols	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
6963	The potential that the volume and variety of transactions will overcome the architecture. Depending on initial results, more states could choose to participate earlier.	Reliability of Systems	Low	Medium	Architect for greater than the anticipated load at a given moment. Utilize technology improvements as they become available. States will also be brought on in stages to avoid quantum jumps in demand and to allow graduated upgrades in processing and communication resources. Baseline current performance and test at intervals.	Synchronize
6965	The possibility of accidental damage by fire, water, etc.	Surety (asset protection) considerations	Low	Medium	All the components of this application, including all hardware and software, are in a secure hosting facility at NITC in Kansas City. The current location is protected by armed security guards, security cameras, building access control, and separate computer access control.	Synchronize
6969	The possibility of system failure at NITC	Surety (asset protection) considerations	Low	Low	Annually test the capabilities of the system by failing over to the coop site at GWCC.	Synchronize
6967	VS lacks the staff to complete POA&M remediation within required schedule.	Project resources	Medium	Medium	Change Due date of POA&M	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
6961	Help Desk Contractor Defaults	Project resources	Low	Medium	Perform due diligence prior to contract award; Familiarize staff with help desk operations as a backup plan.	Synchronize
7103	Assets involved in this implementation are exposed to the possibility of theft or intentional damage by a trusted resource.	Security	Low	Low	Standard USDA security protocols.	Synchronize
7101	The potential that the volume and variety of transactions will overcome the architecture. Depending on initial results, more states could choose to participate earlier.	Reliability of Systems	Low	Medium	Architect for greater than the anticipated load at a given moment. Utilize technology improvements as they become available. States will also be brought on in stages to avoid quantum jumps in demand and to allow graduated upgrades in processing and communication resources. Baseline current performance and test at intervals.	Synchronize
7107	The possibility of accidental damage by fire, water, etc.	Surety (asset protection) considerations	Low	Medium	All the components of this application, including all hardware and software, are in a secure hosting facility at NITC in Kansas City. The current location is protected by armed security guards, security cameras, building access control and separate computer access control.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
7105	The possibility of system failure at NITC.	Surety (asset protection) considerations	Low	Low	Annually test the capabilities of the system by failing over to the coop site at GWCC.	Synchronize
7109	VS lacks the staff to complete POA&M remediation within required schedule.	Project resources	Medium	Medium	Change due date of POA&M.	Synchronize
7111	Help desk Contractor Defaults	Project resources	Low	Medium	Perform due diligence prior to contract award; familiarize staff with help desk operations as a backup plan.	Synchronize

*APHIS Enterprise Infrastructure (AEI) Risks**AEI Project Risks*

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
822	VoIP Server Consolidation	Consolidate all APHIS VOIP Servers down to two servers.	Organizational and change management	Low	Low	Ensure each stage of consolidation is tested before activated. If necessary, fall back to existing configuration.	Synchronize
11287	Enterprise Software License management	Maintain levels of operability with most current licensing agreements.	Surety (asset protection) considerations	Low	Low	Perform several electronic queries to verify the total number of users that will be provided software licenses.	Synchronize
4076	Telecom	Personal mobile devices carrier change. Cost savings with new provider.	Life-cycle costs	Low	Low	Centrally managed by AEI staff. All devices will be replaced and previous devices services will be terminated.	Synchronize

AEI Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
673	Server and workstation maintenance.	Technology	Low	Low	Ensure computing technology and capacities are maintained with current Operating Systems and hardware maintenance agreements.	Synchronize
674	Enterprise systems security	Security	Low	Medium	Continuous monitoring and updating of Enterprise security systems. The priority is entry point security to combat any possible incoming threats.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
4585	Maintain current system performance levels	Reliability of Systems	Medium	Low	AEI is the APHIS GSS. Any interruption of service will be reported, catalogued, researched and remedied. The resolution will be documented for future reference and review.	Synchronize

Natural Resources and Environment Mission Area Major Investment Risks

Forest Service (FS) Major Investment Risks

USDA Land Public Safety Radio System (AgPRS) Risks

AgPRS Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2167	AgPRS Life Cycle Replacement Project	FY13 POW Procurement	Schedule	High	High	Tracking procurement target milestones, reallocating funds if necessary to achieve success.	Synchronize
2168	AgPRS Life Cycle Replacement Project	FY13 POW Estimates	Initial costs	Low	Low	Tracking estimated costs versus actual. Reallocate as funds required increase or decrease.	Synchronize
2169	AgPRS Life Cycle Replacement Project	FY13 LC Estimates	Life-cycle costs	Low	Low	Tracking the cost to implement targeted LC in FY13.	Synchronize
2170	AgPRS Life Cycle Replacement Project	Legacy Component	Technical obsolescence	Low	Low	LC replacement strategy is addressing most obsolete component issues in the program. No alternatives are required at this time.	Synchronize
2171	AgPRS Life Cycle Replacement Project	FY13 POW Feasibility	Feasibility	Low	Medium	Coordination efforts are underway with network and radio teams to mitigate potential conflicts in radio and network upgrades as they arise. No alternative measures are required at present.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2172	AgPRS Life Cycle Replacement Project	Reliability	Reliability of Systems	Medium	Low	Performance Monitoring capabilities are being tested via MTDC prior to implementation. No alternatives have been discussed at present.	Synchronize
2173	AgPRS Life Cycle Replacement Project	Associated Projects	Dependencies and Interoperability between this investment and others	Medium	Medium	Coordination efforts are underway with network and radio teams to mitigate potential conflicts in radio and network upgrades as they arise. No alternative measures are required at present.	Synchronize
2175	AgPRS Life Cycle Replacement Project	Monopoly	Risk of creating a monopoly for future procurements	Low	Medium	The program is beginning to diversify its investment in subscriber units in order to mitigate potential monopolies in procurement.	Synchronize
2178	AgPRS Life Cycle Replacement Project	Program Investment Funds	Overall risk of investment failure	Medium	High	Calculated funding for the program versus award for FY13 has a negative delta of approximately \$10M.	Synchronize
2179	AgPRS Life Cycle Replacement Project	Technology	Technology	Low	Low	The technologies currently being deployed by the radio program are standard throughout the nation. No Mitigation or alternatives are required.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2180	AgPRS Life Cycle Replacement Project	Strategic Planning	Strategic	Medium	Medium	The strategic plan for the program is under construction. We are engaging with architecture to create the bricks and patterns, digital migration and spectrum management plans in order to fulfill the strategic goals.	Synchronize
2183	AgPRS Life Cycle Replacement Project	Development, Modernization, Enhancement (DME) shortfall	Project resources	Medium	Medium	1. Decommission infrastructure components and associated system capabilities. 2. Fund DME requirements for the AgPRS and FS radio infrastructures.	Synchronize
2184	AgPRS Life Cycle Replacement Project	FY2012 through FY2014 O&M Shortfall	Project resources	Medium	High	1. Communicate and emphasize the impacts of budget reductions on the program of work from a modernization and/or sustainment perspective. 2. Review Radio Program Response to Proposed Cuts document to plan for this risk becoming an issue. 3. Adjust radio refresh deployment plan to account for reduced funding.	Synchronize

AgPRS Operational Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2174	AgPRS Operational	Surety	Surety (asset protection) considerations	Low	Medium	The disaster recovery plan has been developed and has minimal impact to programmatic spending at present. No alternatives are required for this risk category.	Synchronize
2176	AgPRS Operational	Funding/Staffing/Skills	Capability of agency to manage the investment	Low	Medium	Staffing in sufficient amount required to implement the approved program of work may be of issue. The program is measuring labor capacity and determining the impact, adjustment via contract is an alternative. Pending travel constraints imposed by the department have potential to disrupt this investments life cycle replacement plans.	Synchronize
2177	AgPRS Operational	Change Management	Organizational and change management	Medium	Medium	Change management processes are intact and operating according to given guidance. No mitigation or alternatives are required.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2181	AgPRS Operational	Security	Security	Low	Medium	Vulnerability assessments are ongoing, preliminary results are being compared to system reliability requirements in order to achieve missions success.	Synchronize
2182	AgPRS Operational	Privacy	Privacy	Low	Medium	Appropriate privacy and PII handling procedures are in place.	Synchronize

Forest Service Computer Base Risks

Forest Service Computer Base Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2266	SR 20115337 Cloud Services	(SR 20115337-Cloud Services) Budget may impact implementation to execute the cloud services project.	Initial costs	Medium	Medium	Will ensure work aligns with industry standards to move to cloud services. Mitigation may be made through increased funding to complete and implement this project.	Omit Synchronization
2267	SR 20092856 DOI - USDA FS Access Authentication	(SR 20092856-DOI USDA FS Access Authentication) Budget may impact implementation to execute components of the IIOG project.	Dependencies and Interoperability between this investment and others	Medium	Medium	Will ensure work with other agencies is highlighted and efforts to complete this project are a budget priority.	Synchronize
2268	SR 20115259 LinkPass 2 Factor Identification	(SR 20115259-Linc Pass 2 Factor Identification) Security changes may affect implementation and coordination within organizational components.	Security	Medium	Medium	Will ensure work with other organizational areas is tightly organized and any security changes are communicated and addressed early in the implementation process.	Synchronize
4452	SR 20093089 Telecommunications Ordering Project	(SR 20093089-Telecommunications Ordering Process) Business processes and implementation changes may affect dependencies and interoperability within organizational components.	Dependencies and Interoperability between this investment and others	Medium	Medium	Will ensure work within organizational units is highlighted and efforts to complete this project are a budget priority.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
4453	SR 20104088 Server Virtualization	(SR 20104088-Server Virtualization) Budget may impact implementation to execute virtualization opportunities.	Initial costs	Low	Low	Will ensure work aligns with industry standards. Mitigation will be made through increased funding to implement this project.	Synchronize
4454	SR 20115333 gEMS Domino Application Migration	(SR 20115333-gEMS Domino Application Migration) Budget may impact implementation to execute the migration of all Domino Applications to gEMS.	Initial costs	Low	Low	Migration may be made through increased funding to complete the project.	Synchronize
4455	SR 20115292 Disaster Recovery Investigation	(SR 20115292-Disaster Recovery Investigation) Ensure Data Center disaster recovery is operational.	Life-cycle costs	Low	Low	Mitigation may be made through increased funding to complete yearly funding requirements.	Omit Synchronization
4457	SR 20071820 Network upgrade for Data Center Initiative	(SR 20071820-Data Center Initiative Migration) Data Center Initiative Migration final tasks to complete migration.	Schedule	Low	Low	Mitigation may be made through increased funding and resources to complete the project executables.	Omit Synchronization
4456	SR 20071820 Data Center Initiative Migration	(SR 20071820-Network Upgrades for Data Center Initiative) Modernize the network to support migration to the Data Centers.	Initial costs	Medium	Medium	Mitigation may be made through increased funding to complete the project.	Omit Synchronization

Forest Service Computer Base Operational Risks

Please refer to eCPIC for updates

Resource Ordering and Status System (ROSS) Risks

ROSS Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	ROSS DME 2013	The risk that HR does not permit the two NTE subject matter expert positions to be replaced after the NTE expires.	Organizational and change management	Medium	High	Risk is on-going. Continue to work with HR to try to convert the two NTE positions to FTEs and to not lose these two critical team positions..	Omit Synchronization
	ROSS O&M	The risk that if the ROSS budget is reduced, technical refresh activities will not be completed, causing the current operational system to fail.	Technical obsolescence	Medium	High	Risk is on-going. Continue to conduct briefings to FS Senior Management and the Information Resources Direction Board regarding the risks associated with budget reductions.	Synchronize
	ROSS O&M	The risk that FS will reduce the required O&M budget for ROSS	Life-cycle costs	Medium	Medium	Risk is on-going. Continue to conduct briefings to FS Senior Management and the Information Resources Direction Board regarding the risks associated with budget reductions.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	ROSS DME 2013	The risk that the two NTE subject matter expert positions are not converted to FTE positions. This would require that the ROSS team identify new personnel to perform these functions. This will affect the integrity of the business requirements.	Organizational and change management	Medium	High	Risk is on-going. Continue to work with HR to try to convert the two NTE positions to FTEs.	Omit Synchronization
	ROSS O&M	The risk that the FS will not approve the filling of key ROSS project team vacancies that have arisen.	Project resources	Medium	High	Risk is on-going. Conduct briefings of FS Senior Management on the risk associated with not filling key ROSS positions.	Synchronize
	ROSS O&M	Change of contractors for O&M results in extensive delays in getting needed changes implemented	Schedule	Medium	Medium	Risk is on-going. Continue to work with contracting to ensure adequate time is given to any required contract transition to minimize the risks associated with such a transition	Synchronize
	ROSS DME 2013	Travel cap adversely affects the ability for the team to work together as a team and with the contractors	Project resources	High	Medium	Articulate the need for travel to FAM IT senior management. Request that additional travel reductions not be taken from the ROSS project team.	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
	ROSS DME 2013	Documentation package from current contractor is incomplete.	Overall risk of investment failure	Medium	Medium	Risk is on-going. There is a risk that the final documentation package from the existing contract will not provide adequate details and information to successfully transition to a new contract and/or contractor. The ROSS SMEs will carefully review the documentation in Star Team and other repositories to check completeness and accuracy.	Omit Synchronization
	ROSS O&M	The IQCS Project Manager has retired and the DOI is considering not filling the position. Not filling this position could adversely impact the ability to keep the ROSS-IQCS interface up to date and trouble shoot problems.	Dependencies and Interoperability between this investment and others	Medium	Low	Risk is on-going. The ROSS team will request a Liaison for the IQCS project. Bring a suggestion to the WIFIT that the position should be filled.	Synchronize

ROSS Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
4891	The risk that the Senior Project Manager will not be replaced after his retirement in January 2013.	Project resources	High	High	Risk is closed. Senior PM will not be replaced.	Omit Synchronization

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
4893	The risk that the transition to a new Help Desk contract will be challenging and result in delays in responding to customer requests.	Project resources	Medium	Medium	During FY 14, a new Help Desk contract is expected to be awarded. To prepare for this transition, ensure that all documentation is updated and complete so as to facilitate a smooth transition.	Synchronize
4953	The risk that agency IT networks do not provide sufficient performance characteristics.	Reliability of Systems	Medium	Medium	Risk is on-going. The ROSS team has developed a reporting process to help users identify, report, and troubleshoot potential problems. Unfortunately, the ROSS team does not control agency IT networks, so the ROSS team's ability to assist in these situations is limited. The FAM IT Branch Chief will reach out to NITC to improve coordination (e.g., regarding outages)	Synchronize
4895	USDA and/or Forest Service Citrix configuration issues adversely impact the ROSS application as a number of ROSS users use Citrix to log in to ROSS.	Technology	Low	Low	Risk is on-going. Look for alternatives to Citrix for such users. The completion of ROSS 3.0, scheduled for December 31, 2013, will lead to the closure of this risk.	Omit Synchronization
4899	The risk that Fire NESS (the General Support System on which ROSS is hosted) or its host site are unavailable (e.g., due to an unplanned outage, equipment failure, due to budget limitations)	Dependencies and Interoperability between this investment and others	Low	Medium	Risk is on-going. The ROSS team actively works with both NESS and NITC to ensure open communication and that the contingency plan for NESS and ROSS are able to be implemented if necessary.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
4897	The risk that FS senior management is not willing to replace vacancies and to retain the continuity on the ROSS project team.	Overall risk of investment failure	Low	Medium	Risk is on-going. The ROSS PM continues to try to convey to senior management the importance of the ROSS team.	Omit Synchronization
5448	The risk that if the O&M budget is cut, technical refresh activities are delayed. This could cause the ROSS project to have to put a computer with an OS that works for the ROSS application in the 320 dispatch offices where ROSS is used.	Technical obsolescence	Medium	Low	Risk is on-going. Continue to work with FS senior management to secure ROSS O&M funding.	Synchronize
5449	The new Fire NESS contract makes it difficult to discern where operational issues originate (e.g., NESS, CAL FIRE, NITC, USDA Networks, non-FS Citrix).	Reliability of Systems	Medium	Low	Risk is on-going. Ensure open communications with the Fire NESS COR and the help desk. Document issues for resolution. Provide ROSS personnel dedicated to coordination with Fire NESS. Initiate incident table top exercises (simulations) to assesses communications problems, etc.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
6063	The risk that the ROSS SMEs will have to spend a lot of time to assist the new Help Desk contractors in learning the ROSS application.	Project resources	High	High	Risk is on-going. The ROSS SMEs will be available to the contractor to provide training activities as needed. The ROSS training lead will work with the contractor proactively to tailor training to meet the needs of the Help Desk. The ROSS team will also provide a SME on site once the new contractor is on board to provide immediate assistance.	Synchronize
6065	The risk that the Help Desk contract having a subcontractor will result in inconsistent quality in delivery between the prime and subcontractor. This could be exacerbated by geographic separation of the prime and subcontractor	Organizational and change management	Medium	High	Risk is on-going. SLAs in the contract provide protection for the government to ensure consistency of quality. The ROSS team will provide SMEs to both geographic locations to support the contractor and subcontractor.	Synchronize
6067	The risk that the cost of the new contract may be more expensive than the current contract and the ROSS project will be asked to defray the higher costs. Also, the cost of the transition period - paying two vendors for like support for a period of 90 days.	Life-cycle costs	High	Medium	Risk is on-going. The ROSS PM will coordinate with the Branch Chief and RIM to seek additional funding from other projects to support the Help Desk.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
6955	Government furlough resulted in the ROSS application being shut down due to lack of O&M activities and the possible implementation of the contingency plan, which included return to manual operations for resource ordering and statusing.	Project resources	Medium	Medium	Risk is on-going. Monitor decisions from Washington DC to plan as appropriate. Develop a plan for an orderly shutdown of the ROSS application and re-institutionalization of paper-based manual resource ordering and status processes.	Synchronize
6953	Government furlough resulted in a delay in the ability to award a new O&M contract.	Schedule	High	Medium	New Risk. The existing O&M contract had to be extended so that ROSS support could continue; additional cost may have been incurred.	Synchronize
6957	The risk that FS FAM decides to replace NAP without backwards compatibility will result in at least a \$500,000 cost impact on ROSS version 2.1X.	Dependencies and Interoperability between this investment and others	Medium	Medium	New Risk. Work closely with the FAM team in defining requirements for the NAP replacement to ensure that it is backwards compatible. If this cannot be accomplished, then work with FAM to obtain the necessary 500K to fix ROSS 2.1X. ROSS may have to be taken out of steady state to make a change this large. Also consider working to ensure ROSS can continue using NAP until the release of Next Generation ROSS.	Synchronize

Natural Resources Conservation Service (NRCS) Major Investment Risks

Conservation Delivery Streamline Initiative (CDSI) Risks

CDSI Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
12741	Conservation Desktop	If rule changes associated with the passage of a Farm Bill require re-architecting, designing and developing CDSI solution then delays to schedule and a change in scope may occur.	Schedule	Medium	Medium	Strengthen business area analysis function in Deputy Chief areas. Involve Investment Review Board (IRB) in visioning efforts. Strengthen tactical ability of Business Area Analysis groups to define requirements. Conform to NRCS/SCA architecture standards to streamline modifications required by legislative changes. Continue Information System Planning (ISP) efforts into all Deputy areas.	Synchronize
14051	Conservation Desktop	If there is too much overlap of design and development multiple CDSI systems Then a delay in one will cause resources to be diverted from another, this will result in delays to additional systems/efforts.	Schedule	Medium	Low	Knowing that there are parallel design efforts for CD, MP & CG, the CDSI Business & IT Teams will schedule resources appropriately (based on timelines from government approved Project Management Plans) and will add resources as needed. The plan is to distribute the work across all staff.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
14052	Conservation Desktop	If funding is not approved Then CDSI will not have the money to continue into development and work stoppage may occur	Schedule	Medium	High	Ensure leadership is aware of funding requirements. Slow development extending it across additional fiscal years	Synchronize
14053	Conservation Desktop	If there are delays getting contracts awarded Then CDSI's schedule can slip	Schedule	Medium	High	Submit apportionment requests through BPAD and OBPA for OMB to align with acquisition timelines to facilitate timely awards. Work closely with contracting to identify and overcome potential impediments.	Synchronize
14050	Client Gateway	If cloud computing is not fully configured to meet NRCS compliance and standards Then schedule will be impacted as additional security compliance and troubleshooting will be required to ensure end to end functionality	Technology	Medium	Medium	Investigate cloud providers. Ensure any provider selected can provide a responsive and dynamic cloud computing solution that meets NRCS mission and business needs while also streamlining IT expenditures and assets	Synchronize

CDSI Operational Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If the Pega Cloud development, test, and QA environments are not completed by April 4, 2014, then Client Gateway's Aug. 15, 2014 deployment date may be delayed, impacting cost and schedule.	Schedule	Highly Likely - 95%	High	<p>(1) Discuss with Project Management impacts of potential delay to Aug. deployment date: Week of 11/22</p> <p>(2) Hold weekly status meetings with CIO (schedule, budget, issues, etc.)</p> <p>(3) Entrust tokens received by 11/22</p> <p>(4) Submit RFC to NITC to open firewalls (12/11)</p> <p>(5) Work in parallel with NITC HA and FTC Development teams to mitigate risk.</p> <p>(6) Develop a plan with specific action owners and suspense dates via weekly meetings</p>	

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If the NITC HA development environment is unable to communicate with the FTC development environment in order to access legacy applications (ProTracts, DMS, NPAD) by COB on 12/31, then the legacy web services will not be completed by Jan. 15, 2014, which may impact the Aug. 1, 2014 deployment date.	Technology	Highly Likely - 95%	High	(1) Initiate conversation with staff by 12pm on 12/6 if no solution is determined (2) Begin initial planning for contingency regarding missed Jan. 15, 2014 date (3) Submit RFC to NITC to open firewalls (12/11) (4) Working in parallel with NITC HA and FTC Development teams to mitigate risk	

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If additional staffing is not provided for the CDSI IT and EBI teams to execute the planned CG, CD, and MPT new application architecture and development efforts, complete the re-planning and re-baseline for the CDSI investment and build out the CDSI Roadmap in out years, then insufficient FTE staffing levels will require additional contractor support costs, will limit the level of government oversight into the program and timely resolution of potential program issues, and will result in additional project costs	Project resources	Likely - 85%	Significant	<p>For IT:</p> <p>(1) Develop cost-benefit analysis to determine the cost / schedule impact caused by lack of Federal resources</p> <p>(2) Review Lessons Learned and historical information pertaining to previous CDSI staffing levels</p> <p>(3) Hire federal staff per staffing plan</p> <p>(4) Redirect contracting staff from other projects to support the program</p> <p>(5) Hire additional contract staff to support the program activities.</p> <p>For EBI:</p> <p>(1) Hire federal staff per staffing plan or</p> <p>2) utilize detainees from the states to support the EBI team in during the software development process and to help write business requirements for future implementation.</p>	

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If individual and business entity roles are not explicitly defined, then the first release of Client Gateway will only partially support individual's access to customer data. Access to business entity records will not be possible in the first release.	Technology	Likely - 85%	Significant	(1) Collaborate with EBI team to explicitly define the roles of individual and business entities needed to implement the requirements (2) Recommend deferment of the business entity requirements until post Client Gateway v.1 release	
	Conservation Delivery Streamlining Initiative (CDSI)	If the current requirements for an eSignature solution are not met with the checkbox feature, then customers will be unable to electronically sign documents in Client Gateway v. 1	Technology	Likely - 85%	Significant	(1) Short term solution: Formal business acceptance of requirements in FY14 will support long term enterprise IT solution to be implemented in version 2 (2) Develop Decision Memos for programs deputy area and financial management to determine if the simple checkbox approach is sufficient (audit and obligating financial documents) (3) Evaluating various enterprise eSignature solutions that could be implemented in CG v. 2 release and would replace the simple checkbox approach	

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If the internal and external systems such as NPAD, SCIMS, eAuth, zRoles, etc. and geospatial services do not interface with CG, then the information these services provide from various databases to the client will be unavailable, meaning CG will not fulfill its V1 requirements for Aug 2014 deployment.	Technology	Likely - 85%	Significant	(1) Establish a "Dedicated Integration Team" to work with CG vendor and IT Project Manager to complete the required integration services. All services have been identified, assignments for each service provided along with completion dates, integration is being monitored daily, and the integration work is progressing. (2) Continue to work with NITC and ITS to resolve network trust issues (RID-118)	

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If the interdependency of new components that have not been tested together (Pega platform, Client Gateway, NITC and ITS environments) results in unforeseen complications, then Client Gateway may not be available for DRT commencement on April 15, 2014, resulting in schedule delays which may impact the Aug. 15, 2014 deployment date.	Technology	Likely - 85%	Significant	(1) Establish a dual path option and Decision Memo to USDA CIO for consideration on 12-19-13 (2) Partner with NITC to get Pega platform implemented within and connected to NITC and ITS environments (in progress) (3) Work with Pega company to assist with best practices for deployment standards (4) Hire Pega developers and subcontractors for Pega development expertise and assistance with the implementation of Pega core foundational components	

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If the combination of untested components (NITC HA development environment, Pega, Client Gateway) results in unforeseen complications, then Client Gateway may not be available for DRT commencement on March 21, 2014, resulting in schedule delays which may impact the Aug. 1 , 2014 deployment date	Technology	Even chance - 50%	High	(1) Hire Pega developers via Vistrionix for a Pega premier partner (2) Stand up SAS BI in the NITC HA environment with a mid-January timeline to test environment (3) Put Pega COE fundamentals in place (4) Hold biweekly Pega infrastructure team meetings (5) Appoint a Project Manager to manage the Pega infrastructure as a project (6) Monitor SAS BI within NITC HA environment for lessons learned (7) Truncating DRT (8) Prioritize requirements with business for additional blockers that may arise	

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If there is too much overlap of design and development multiple CDSI systems, then a delay in one will cause resources to be diverted from another, this will result in delays to additional systems/efforts.	Schedule	Unlikely - 15%	High	(1) Schedule resources appropriately (based on timelines from government approved Project Management Plans) to provide coverage across CG, MPT and CD milestones (2) Provide project schedule for completing CDSI high-level architecture and design provided to CDSI PM by EA staff (est. 05/01/2014)	
		If the NRCS Quality Assurance team cannot utilize an environment that mirrors the exact development environment, then NRCS Quality Assurance may not be able to perform any quality control measures to validate the deliverables.	Capability of Agency to Manage the Investment	Remote - 5%	Low	(1) Deploy Client Gateway in the Pega Cloud environment	

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	OMB Categories	Probability	Impact	Mitigation Plan	Include in IT Dashboard
	Conservation Delivery Streamlining Initiative (CDSI)	If the current requirements stipulate that external clients are required to have an eAuth level 2 authentication account, then an enterprise solution to authenticate and identify external users' identities must be obtained to avoid users physically traveling to a field office to validate their identity, which is a deterrent to the adoption of Client Gateway.	Technical obsolescence	Even chance - 50%	Moderate	<p>(1) Collaborate with USDA OCIO ICAM team to identify a potential solution that we are currently evaluating for implementation -- two pilots were identified (RD and APHIS).</p> <p>-Lexus Nexus offers eAuth level 1 through 3 (phone authentication or customer user interface).</p> <p>-Cost to initiate contract: \$3K</p> <p>-Cost to phone authenticate user: \$0.37 per transaction</p> <p>-Cost to build out user interface: TBD</p> <p>(2) Develop a detailed implementation strategy to include cost, schedule, and dependencies for the implementation of the Lexus Nexus solution, which includes the user interface development</p> <p>(3) Implement the eAuth level 2 solution</p> <p>Note: This solution has no impact on the development of the Client Gateway. It specifically interfaces with eAuth only and can be done in parallel.</p>	

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
5450	If decisions and guidance for digital signature are not provided or approved by USDA If decisions and guidance for digital signature are not provided or approved by USDA	Dependencies and Interoperability between this investment and others	Low	Low	Work closely with technical team.	Synchronize

Rural Development Mission Area Major Investment Risks

Rural Development (RD) Major Investment Risks

Comprehensive Loan Program (CLP) Risks

CLP Project Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
15387	CLP Core Services Modernization	Web Portal: Acquisition of inappropriate hardware/software will result in a system that does not meet the requirements of the end user.	Technology	Low	High	Properly define end user and system requirements. Perform diligent design reviews and analysis to ensure adherence to requirements. Conduct functional, system integration and user acceptance testing prior to deployment.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2640	CLP PMO Support and Documentation	CLP PMO: Failure of PMD to execute procurements within the appropriate fiscal year will result in schedule slippage.	Schedule	Low	Medium	PMD and CIO will work closely to plan for all procurements so that PMD resources are aligned to support the timely release and closure of procurements. Include PMD in CLP Status meetings. Failure to receive planned funding has limited the number of procurements required thus reducing the demands on PMD.	Synchronize
15381	CLP Systems Modernization	PLAS Retirement: The FMMI program may experience schedule slippage, which may delay RD s plan to retire existing PLAS applications.	Dependencies and Interoperability between this investment and others	Medium	Medium	Work closely with the FMMI project team to define FMMI scope and develop a plan to decouple loan processing functionality from Financial/ General Ledger functionality in RD legacy systems.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2642	CLP PMO Support and Documentation	CLP Maint: Reduction in resources due to:- Natural attrition, voluntary early retirements/potential buyouts, - Potential reorganization of RD and USDA agencies to consolidate multiple mission functions including information technology support services could also impact availability of federal staff; significant loss of experience and institutional knowledge and could cause the overall failure of the investment.	Project resources	High	High	Designate a qualified and certified senior level program manager who will take overall responsibility for CLP initial delivery and devote 100% of his or her time to the task. Assign a project manager according to area of expertise for each CLP component project and augment its staff with contractor staff as necessary. Create a "Critical Task List" to include: - prioritization of remaining tasks, and - the responsible party.	Synchronize
2643	CLP PMO Support and Documentation	CLP PMO: Failure to conduct thorough planning and careful execution monitoring and control may result in schedule slippage and cost overruns and put the project in jeopardy.	Capability of agency to manage the investment	Low	Low	Maintain the Program Management Office (PMO) to oversee the CLP from planning through implementation of the component projects. Develop both program and component project level schedules that identify milestones and stage gate reviews and work with CLP Project Managers on an ongoing basis to update work plans / schedules.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2644	CLP PMO Support and Documentation	CLP PMO: Lack of timely availability of RD business and technical experts to participate in requirements and design sessions, to be available for decision making, and to be available for critical stages of testing and solution acceptance may lead to schedule slippage and cost overruns.	Overall risk of investment failure	Low	Low	Maintain the specific level of support needed from RD business and technical experts in project plans. Assign specific individuals from business and IT as point people for each project and ensure that their non-CLP workload permits them to participate in CLP activities as needed.	Synchronize
2645	CLP PMO Support and Documentation	CLP PMO: Physical separation of key stakeholders, subject matter experts, and other project participants in Field and State Offices, St. Louis, Washington, DC and contractor locations may impede effective communication and teamwork during critical project stages including requirements, design, and testing.	Capability of agency to manage the investment	Low	Low	Maintain a comprehensive communications plan that addresses issues including inter- and intra- team communications and integrated project plan development with monitoring. Continues using established methods of communications (VTC, teleconferencing, SharePoint) and supplement long-range communication methods with periodic trips to Washington DC/St. Louis.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
2648	CLP PMO Support and Documentation	CLP PMO: Funding needed to adequately procure and maintain systems may exceed original estimates >/< 20%-30%.	Life-cycle costs	Low	Low	Peggy Stroud (and staff) needs to be intimately involved in Alternative Analysis updates in the future to ensure good quality estimates are developed. Component Managers need to be held accountable to their estimates.	Synchronize
2652	CLP PMO Support and Documentation	CLP PMO: Lack of available resources, SMEs, and external resources (NITC and ITS) that are shared among multiple task orders and have conflicting priorities may delay schedule.	Project resources	Low	Medium	All resources that are identified in the project schedule must approve the final project schedule to ensure everyone is in concurrence. Continue to utilize IMS to manage all resources. Continue to communicate with stakeholder. Develop resource loaded IMS, perform resource leveling, and keep all resources/stakeholders informed of upcoming time requirements. Hold regular meetings with NITC, ITS and DCFO to ensure their timeline is in sync with CLP.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Project	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
15389	CLP Core Services Modernization	SOA: Acquisition of inappropriate hardware/software will result in a system that does not meet the requirements of the end user.	Technology	Low	High	Properly define end user and system requirements. Perform diligent design reviews and analysis to ensure adherence to requirements. Conduct functional, system integration and user acceptance testing prior to deployment.	Synchronize

CLP Operational Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
1883	CLP PMO: Failure to prepare and communicate reasons for systems changes to the end user community could result in rejection by stakeholder communities or inability to use the new systems effectively to perform work.	Organizational and change management	Low	Medium	Maintain CLP Communication Plan that identifies CLP champions among the business user community and engage key business stakeholders early in the project to develop support for CLP. Include end users into User Acceptance Testing. Mitigation strategy is working effectively and currently no vulnerabilities in this strategy have been identified.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
1885	CLP Maint: Failure to follow security policies by personnel can result in lack of CLP confidentiality, integrity or availability.	Security	Low	Medium	Provide security awareness training to all personnel and provide management oversight to ensure all employees are compliant with the Info Security Awareness Training (ISAT) guidelines.	Synchronize
1886	CLP Enterprise Reporting: Unauthorized access to customer data can result in negative perception of USDA s ability to safeguard critical data.	Privacy	Low	High	Review all proposed changes for impact on current privacy to ensure system PTA/PIA are current and ensure users are receive training on how to respond to security issues which affect privacy data. OIG finding UAM Certification Process.	Synchronize
1888	CLSS: Implemented software may become outdated and will need to be upgraded before the full implementation of the system is realized.	Technical obsolescence	Low	Low	Maintain adequate funding reserves for software upgrades. Also mitigating to standard space non-propriety software technology wherever possible	Synchronize
1889	CLP Maint: Certification and Accreditation updates are not completed timely.	Dependencies and Interoperability between this investment and others	Low	Medium	Schedule CLP C&A tasks, obtain funding and complete tasks on time. Mitigated through maintaining project schedules and contracting.	Synchronize

Appendix C: USDA Major IT Investments Risks

OMB ID	Risk Name	Risk Category	Risk Probability	Risk Impact	Mitigation Plan	Include in IT Dashboard
1890	CLP Maint: After migrating new CLP systems to production, availability or performance is poor, resulting in unsatisfactory user experience.	Reliability of Systems	Low	Low	Perform performance oriented pre-production testing in development, test, and certification regions; retain a well-trained technical support staff; perform ongoing monitoring of production applications using Cordiant and Open view to identify problems quickly; escalate production problems quickly to senior technical staff or vendor support; perform root cause analysis after problems are resolved.	Synchronize
4599	CLP PMO: Failure to properly define and execute a feasible spending plan/project plan could result in RD losing funding that must be obligated in future years.	Initial costs	Medium	Medium	Work closely with CIO and Budget staff to ensure that funds are properly allocated across CLP component projects. Complete a comprehensive prioritized procurement list with timelines.	Synchronize

Appendix D: IRM/ER Traceability Matrix

Code	Description	Addressed in USDA Enterprise Roadmap	
		Section	Other
Note: The four-letter code for each of the following items has been included with content in the document where each item has been addressed.			
Agency Strategic Goals and Objectives			
AXXA	Identify agency strategic goals and objectives supported by the IRM strategic plan (AXXA)		Addressed in <i>USDA IT Strategic Plan</i>
AXXB	Describe how activities of the IRM Strategic Plan and Enterprise Roadmap advance these goals and objectives (AXXB)		Addressed in <i>USDA IT Strategic Plan</i>
Improving Services to Customers - Describe how your agency regularly evaluates existing and planned customer-facing services to:			
BXXA	Measure customer use and satisfaction through analytics and other approaches (BXXA)	2.0	
BXXB	Improve usability, availability, and accessibility of services, including optimization of services for mobile use (BXXB)	2.0	
BXXC	Advance agency performance goals (BXXC)	2.0	
Governance and Management Processes - Describe the governance process the agency uses to ensure that current law and policy are followed when planning, prioritizing, funding, executing, and decommissioning IT investments. If there are differences in the way the governance process is implemented across organizational units, describe those differences and why they exist. At a minimum, address:			
CXXA	The scope of the governance process, including Investment Review Board and other Portfolio Governance Boards (as appropriate) along with delegation of authority to bureaus or other organizational units (as appropriate) (CXXA)	1.3	
CXXB	Which agency stakeholders are engaged, including "C"-level leadership (CXXB)		Addressed in <i>USDA IT Strategic Plan</i>
CXXC	The valuation methodology used to comparatively evaluate investments, including what criteria and areas are assessed (CXXC)		Addressed in <i>USDA IT Strategic Plan</i>
CXXD	How the agency ensures investment decisions are mapped to agency goals and priorities (CXXD)		Addressed in <i>USDA IT Strategic Plan</i>
CXXE	A high-level description of the process used to assess proposed investments and make decisions, including frequency of meetings and how often the process is updated (CXXE)	1.3	
CXXF	How you coordinate between investment decisions, portfolio management, enterprise architecture, procurement, and software development methodologies (CXXF)	1.3	
CXXG	Describe the agency's IT strategic sourcing plan, to include processes for addressing enterprise licenses		Addressed in <i>USDA IT Strategic Plan</i>

Code	Description	Addressed in USDA Enterprise Roadmap	
		Section	Other
	(CXXG)		
CIO Authorities			
DXXA	Describe how the agency policies, procedures and authorities implement CIO authorities, consistent with OMB Memorandum 11-29, "Chief Information Officer Authorities" (DXXA)		Addressed in <i>USDA IT Strategic Plan</i>
Cybersecurity Management			
EXXA	Summarize your agency's strategy to ensuring that IT investment and portfolio decisions align with the Administration's Cybersecurity Priority Capabilities and your agency's IT security goals, and how you will continue to strengthen this alignment (EXXA)	Appendix A	
EXXB	Describe your agency's approach to ensure all mission critical applications have the proper continuity of operation and disaster recovery capabilities such that the agency can support the proper level of continuity of Government operations in accordance with Federal statute and guidance (EXXB)	Appendix A	
Workforce			
FXXA	Summarize your agency's approach to IT human capital planning, including the ability to build a future ready workforce to support the agency's strategic goals and objectives (FXXA)	Appendix A	
Managing Information as an Asset			
GXXA	Include how your agency will promote interoperability and openness throughout the information life cycle and properly safeguard information that may require additional protection. Specifically address how information collection and creation efforts, information system design, and data management and release practices will support interoperability and openness (GXXA)	2.2.2	
GXXB	Describe how your agency ensures that personal information, including personally identifiable information (PII) and controlled, unclassified information (CUI), is accessible only to authorized personnel and how frequently these controls are verified (GXXB)	2.2.1	
Commodity IT and Shared Services			
HXXA	Describe your agency's approach to maturing the IT portfolio, to include optimizing commodity IT (including data centers), rationalizing applications and adopting a service orientation approach (HXXA)	Appendix A	
HXXB	Describe the agency's plan to re-invest savings resulting from consolidations of commodity IT resources (including data centers) (HXXB)	Appendix A	
HXXC	Describe your agency's approach to maximizing use of inter-and intra-agency shared services (such as those	Appendix A	

Code	Description	Addressed in USDA Enterprise Roadmap	
		Section	Other
	enabled by common platforms and lines of business) and shared acquisition vehicles for commodity IT, such as those determined by the Strategic Sourcing Leadership Council, in order to reduce duplicative contract vehicles (HXXC)		
Accessibility - Describe the agency's approach to:			
IXXA	Creating a diverse environment where individuals of all abilities can work, interact, and develop into leaders (IXXA)		Addressed in <i>USDA IT Strategic Plan</i>
IXXB	Integrating accessibility considerations into the processes used in developing, procuring, maintaining, or using IT (IXXB)		Addressed in <i>USDA IT Strategic Plan</i>
IXXC	Building workforce skills to support an environment where Section 508 requirements and responsibilities are well understood, communicated, implemented, and enforced (IXXC)		Addressed in <i>USDA IT Strategic Plan</i>

Appendix E: Acronyms and Abbreviations

The table below describes the acronyms and abbreviations used in this document.

Acronym	Description
ACIO	Associate Chief Information Officer
ACRSI	Acreage/Crop Reporting Streamlining Initiative
AIS	Automatic Identification System
AIX	Advanced Interactive eExecutive
AMS	Agricultural Marketing Service
ANI	Automatic Number Identification
APHIS	Animal and Plant Health Inspection Service
API	Application Program Interface
ARIN	American Registry for Internet Numbers
ARRA	American Recovery and Reinvestment Act
ARS	Agricultural Research Service
AT&T	American Telephone & Telegraph
BI	Business Intelligence
BOT	Back-Office Transition
BPA	Blanket Purchase Agreement
BPMS	Budget and Performance Management System
BPOS	Business Productivity On-line Suite
BRM	Business Reference Model
CCC	Commodity Credit Corporation
CCCBF	Commodity Credit Corporation Budget Formulation
CCE	Common Computing Environment
CCV	Critical Control Validation
CDC	Center for Disease Control
CDD	Custom Design Document
CDMS	Correspondence and Document Management System
CDSI	Conservation Delivery Streamlining Initiative
CFMS	Corporate Financial Management System
CIMS	Comprehensive Information Management System
CIO	Chief Information Officer
CLP	Comprehensive Loan Program
CLU	Common Land Unit
CONOPS	Concept of Operations
COO	Chief Operating Officer

Acronym	Description
CACFP	Child and Adult Care Food Program
COTS	Commercial Off-The-Shelf
CPD	Capital Planning Division
CPIC	Capital Planning and Investment Control
CPO	Cyber Policy and Oversight
CRM	Customer Relationship Management
CSAM	Cyber Security Assessment and Management
CSDS	Common Survey Data Structure
CSFP	Commodity Supplemental Food Program
DAS	Data Acceptance System
DBaaS	Data Base as a Service
DHCP	Dynamic Host Configuration Protocol
DHS	Department of Homeland Security
DKIM	Domain Keys Identified Mail
DM	Departmental Management
DNS	Domain Name System
DNSSEC	Domain Name System Security Extensions
DOC	Department of Commerce
DOI	Department of Interior
DOL	Department of Labor
DOT	Department of Transportation
DR	Departmental Regulation
DTS	Data Transmission
EA	Enterprise Architecture
EAR	Enterprise Architecture Repository
EAS	Exchange Active Sync
ECM	Enterprise Content Management
ECMM	Enterprise Correspondence Management Module
EDC	Enterprise Data Center
EDCO	Enterprise Data Center Operations
EEMS	Enterprise Entitlement Management System
Efax	Electronic Facsimile
EITA	Emerging Information Technology Architecture
ELA	Enterprise License Agreement
ENS	Enterprise Network Services
EPA	Environmental Protection Agency
EPACS	Enterprise Physical Access Control System
ER	Enterprise Roadmap

Acronym	Description
ERP	Enterprise Resource Planning
ERS	Economics Research Service
ESRI	Environmental Systems Research Institute
FADS	Food Assistance in Disaster Situations
FAR	Federal Acquisition Regulation
FAS	Foreign Agricultural Service
FDA	Food and Drug Administration
FDCCI	Federal Data Center Consolidation Initiative
FDPRI	Food Distribution Program on Indian Reservations
FFIS	Foundation Financial Information System
FIPS Pub	Federal Information Processing Standards Publication
FISMA	Federal Information Security Management Act
FMFIA	Federal Managers Financial Integrity Act
FMMI	Financial Management Modernization Initiative
FADS	Food Assistance in Disaster Situations
FOIA	Freedom of Information Act
FS	Forest Service
FSA	Farm Service Agency
FSC	Field Service Center
FSIS	Food Safety and Inspection Service
FSS	Federal Supply Schedule
FSSI	Federal Strategic Sourcing Initiative
FTS	Frame Relay
FY	Fiscal Year
GIPSA	Grain Inspection, Packers & Stockyards Administration
GIS	Geographical Information System
GISaaS	Geographical Information Software as a Service
GSA	General Services Administration
HHS	Health and Human Services
HR	Human Resources
HSPD-12	Homeland Security Presidential Directive-12
IaaS	Infrastructure as a Service
IAS	Integrated Acquisition System
ICAM	Identity Credential Access Management
ID	Identification
IEPD	Information Exchange Package Documentation
IPAS	Integrated Program Accounting System
IPS	Internet Protocol

Acronym	Description
IPT	Integrated Project Team
IPV4	Internet Protocol Version 4
IPv6	Internet Protocol Version 6
ISO	International Organization for Standardization
ISP	Internet Service Provider
IT	Information Technology
ITIL	Information Technology Infrastructure Library
ITO	Indian Tribal Organization
ITS	International Technology Services
ITSM	Information Technology Services Management
LACS	Logical Access Control System
LAN	Local Area Network
LCM	Life Cycle Management
LMPRS	Livestock Management Price Reporting System
LRP	Livestock Risk Protection
MDM	Mobile Device Management
MIDAS	Modernize and Innovate the Delivery of Agricultural Systems
MNS	Managed Network Services
MOA	Memorandum of Agreement
MPS	Management Print Service
MS	Microsoft
MSC	Management Service Center
MSO	Managed Service Offices
NASS	National Agricultural Statistics Service
NCSD	National Cyber Security Division
NFC	National Finance Center
NIEM	National Information Exchange Model
NIFA	National Institute of Food and Agriculture
NIST	National Institute for Standards and Technology
NITC	National Information Technology Center
NRCS	Natural Resources Conservation Service
NSLP	National School Lunch Program
OA	Office of Advocacy & Outreach
OBPA	Office of Budget & Program Analysis
OC	Office of Communications
OC	Optical Carriers
OCE	Optimized Computing Environment
OCFO	Office of the Chief Financial Officer

Acronym	Description
OCIO	Office of the Chief information Officer
OCIO-ENS	Office of the Chief information Officer - Enterprise Network Services
OES	Office of the Executive Secretariat
OIG	Office of the Inspector General
OMB	Office of Management and Budget
OPM	Office of Personnel Management
PAAS	Platform as a Service
PACS	Physical Access Control System
PC	Personal Computers
PCIMS	Processed Commodity Inventory Management System
PHICP	Public Health Information Consolidated Project
PHIS	Public Health Information System
PIV	Personal Identification Verification
PKI	Public Key Infrastructure
PLS	Private Line
PMP	Project Manager Professional
RD	Rural Development
RIRS	RMA Information Reporting System
RMA	Risk Management Agency
ROE	Regional Office Exceptions
SaaS	Software as a Service
SAP	Systems Applications and Products
SAS	Statistical Analysis System
SCA	Service Center Agency
SDA	State Distributing Agencies
SDS	Switched Data
SED	Service Enabling Device
SFSP	Summer Food Service Program
SHA	Secure Hash Algorithm
SLA	Service Level Agreement
SMOC	Senior Management Oversight Council
SOA	Service Oriented Architecture
SQL	Structured Query Language
SVS	Switched Voice
TEFAP	The Emergency Food Assistance Program
TEMS	Telecommunications Expense Management Services
TFS	Toll-Free
TIC	Trusted Internet Connection

Acronym	Description
TSO	Telecommunications Services and Operations
USAID	United States Agency for International Development
USDA	United States Department Of Agriculture
USGv6	United States Government Version 6
UTN	Universal Telecommunications Network
UTN-NG	Universal Telecommunications Network - Next Generation
VA	Veterans Administration
VAS	Value Added
VPN	Virtual Private Network
WAN	Wide-Area Network
WBSCM	Web Based Supply Chain Management
XML	Extensible Mark-up Language